From: JAMES ENSTROM <jenstrom@ucla.edu>
Sent: Wednesday, June 02, 2021 12:11 AM

**To:** Yeow, Aaron

**Subject:** Enstrom Comment to EPA re New CASAC Candidates

**Attachments:** Enstrom Comment to EPA re New CASAC Candidates 060121.pdf

June 1, 2021

Mr. Aaron Yeow
Designated Federal Officer
Environmental Protection Agency
yeow.aaron@epa.gov

Dear Mr. Yeow,

Attached is my June 1, 2021 Public Comment to EPA re New CASAC Candidates. Please confirm receipt.

Thank you very much.

James E. Enstrom, PhD, MPH, FFACE jenstrom@ucla.edu (310) 472-4274

From: Na'Taki Jelks <nosborne@spelman.edu>
Sent: Tuesday, June 01, 2021 11:58 PM

nosborne

To: Yeow, Aaron

**Subject:** Public Comment to Support Nomination of Dr. Christina Fuller (EPA's CASAC)

Attachments: Public Comment - Dr. Christina Fuller\_EPA CASAC.pdf

#### Mr. Yeow:

Cc:

Please find the attached comment in support of Dr. Christina Fuller, in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC).

Please feel free to let me know if you have questions or need additional clarification.

Best,

Na'Taki Osborne Jelks, Ph.D., MPH
Assistant Professor, Environmental and Health Sciences
Spelman College
350 Spelman Lane SW
Box 235

Science Center Rm. 331 Atlanta, GA 30314

Email: nosborne@spelman.edu

## **Editorial Board Member,** Environmental Justice

Vice Chair/Member, U.S. EPA National Environmental Justice Advisory Council (NEJAC)

Senior Fellow, Environmental Leadership Program

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## www.interdisciplinaryresearch-leaders.org

The opinions expressed here are the author's own and do not represent the opinions of the program or the Robert Wood Johnson Foundation.

From: Chantell Frazier < chantell.b.frazier@gmail.com>

**Sent:** Tuesday, June 01, 2021 11:41 PM

**To:** Yeow, Aaron

Subject: Invitation for Public Comment on the List of Candidates For EPA's Clean Air Scientific Advisory

Committee (CASAC)

#### Dear Mr. Yeow:

I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC). CASAC plays an important role under the Clean Air Act in providing expert advice to EPA that includes reviewing EPA's air quality criteria and national ambient air quality standards developed under Clean Air Act (CAA) sections 108 and 109, as well as providing EPA with other related scientific and technical advice.

On May 10, 2021, EPA's Science Advisory Board (SAB) issued a "Invitation for Public Comment on the List of Candidates for the CASAC." CASAC is a seven-member Federal Advisory Committee (FAC) tasked with providing EPA independent scientific advice related to the national ambient air quality standards (NAAQS). I have worked in health and health policy research for ten years, and I know how important clean air, environments, and healthy spaces are to long term health outcomes, especially for marginalized communities.

The EPA has long been criticized for the lack of fresh perspectives on the CASAC when accessing balance on the panel. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence." These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions; this is the reason why strong consideration should be given to Dr. Crystal Upperman.

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Crystal's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Crystal is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Crystal earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health - particularly for women of color and other vulnerable populations who live in low income, low resourced communities often the location of brown sites, victim to toxic runoff and harmed by pollutants unless explicitly prioritized and protected by informed and compassionate scientists and leaders.

I would like to have someone on the CASAC that is going to support the use of sound credible science to protect the most vulnerable, have professional experience spanning academia, the private and public sectors, and who is culturally competent, and that person is Dr Upperman.

Thank you, Chantell Frazier, Ph.D.

**From:** cmurphy@aannet.org

**Sent:** Tuesday, June 01, 2021 9:31 PM

**To:** Yeow, Aaron

**Subject:** Support for Jessica Castner for the EPA CASAC

**Attachments:** Jessica Castner CASC nomination.pdf

## Good evening,

Attached is the letter of support from the American Academy of Nursing regarding the nomination of Jessica Castner for CASAC.

Have a good evening, Christine

**Christine Murphy, MA Senior Director of Policy** 

American Academy of Nursing 1000 Vermont Ave NW Ste. 910 | Washington, DC 20005 cmurphy@AANnet.org | 202.777.1174 | www.AANnet.org



From: Darlene Schanfald <darlenes@olympus.net>

**Sent:** Tuesday, June 01, 2021 8:48 PM

**To:** Yeow, Aaron

**Subject:** CASAC Letter of Recommendation for Jean Mendoza

**Attachments:** LOR for Mendoza to CASAC

Dear Mr. Yeow:

Please accept this letter of recommendation for Jean Mendoza of Washington State to serve on your CASAC. Thank you.

From: Ananya Roy <aroy@edf.org>
Sent: Tuesday, June 01, 2021 8:37 PM

**To:** Yeow, Aaron

**Subject:** Supporting nomination of Prof. Schwartz to the EPA CASAC

Attachments: Joel Schwartz CASAC Nomination support letter 2021.pdf; 2020 Joel Schwartz CV.pdf

Dear Mr. Yeow,
I am writing in support of Prof. Schwartz to the EPA CASAC. Please see my attached letter and Prof. Schwartz's CV. Warm regards,
Ananya Roy
Senior Health Scientist

This e-mail and any attachments may contain confidential and privileged information. If you are not the intended recipient, please notify the sender immediately by return e-mail, delete this e-mail and destroy any copies. Any dissemination or use of this information by a person other than the intended recipient is unauthorized and may be illegal.

From: Linda Reinstein < linda.reinstein@gmail.com>

**Sent:** Tuesday, June 01, 2021 8:30 PM **To:** Yeow, Aaron; Regan, Michael

Subject: Deep concerns about the nomination of Mark Maddaloni Dr.PH, Dennis J. Paustenbach, Ph.D, and

David Warheit, PhD to the Clean Air Scientific Advisory Committee

Attachments: Letter re EPA Clean Air Scientific Advisory Committee.pdf; Publications by Product Defense

Scientists.pdf

Letter attached. Thank you.

Linda

## Linda Reinstein · President & Cofounder

# **Asbestos Disease Awareness Organization**

Address: 1525 Aviation Boulevard, Suite 318, Redondo Beach, California 90278

**Website:** asbestosdiseaseawareness.org **Email:** linda.reinstein@gmail.com



From: Bakst, Daren < Daren.Bakst@heritage.org >

**Sent:** Tuesday, June 01, 2021 8:20 PM

**To:** Yeow, Aaron

**Subject:** Comments Regarding CASAC **Attachments:** BakstCASACCommentsFinal.pdf

Mr. Yeow:

Please find my CASAC-related comments attached to this email. If there is any additional information you need, please let me know.

Sincerely,

#### Daren Bakst

#### Daren Bakst

Senior Research Fellow in Regulatory Policy Studies Institute for Economic Freedom

The Heritage Foundation 214 Massachusetts Avenue, NE Washington, DC 20002 202-608-6163

heritage.org

From: Yamide Dagnet <Yamide.Dagnet@wri.org>

**Sent:** Tuesday, June 01, 2021 7:20 PM

**To:** Yeow, Aaron

**Subject:** Re: Invitation for Public Comment on the List of Candidates For EPA's Clean Air Scientific Advisory

Committee (CASAC)

**Attachments:** Ref For Crystal Upperman\_from Yamide Dagnet (003).pdf

**Importance:** High

Dear Mr. Aaron Yeow,

Following EPA's Science Advisory Board (SAB) 's Invitation for Public Comment on the List of Candidates for the CASAC, I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC).

In the attached letter, I am recommending Dr Upperman to be seriously considered for the membership of EPA's CASAC. Her fresh perspectives, background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health.

Please do let me know if you have any queries.

Sincerely,

Yamide Dagnet

Yamide Dagnet Director, Climate Negotiations Climate Program World Resources Institute WRI.org

Direct: +1 301 605 5796 |

YDagnet@wri.org | Skype: yamide.dagnet2 | Twitter: @worldresources

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From: Jason Schwartz <jason.schwartz@nyu.edu>

**Sent:** Tuesday, June 01, 2021 6:40 PM

**To:** Yeow, Aaron

**Cc:** Richard Revesz; Peter Howard

**Subject:** CASAC: Comments Supporting the Appointment of Dr. Kevin Cromar

**Attachments:** EPA CASAC Nominations\_Comments\_2021.06.01.pdf

Dear Mr. Aaron Yeow,

Please find attached our comments supporting the appointment of Dr. Kevin Cromar to the CASAC.

Sincerely,
Jason A. Schwartz
Legal Director, Institute for Policy Integrity
Adjunct Professor, New York University School of Law
(617) 571-9672. Based in Denver, CO.

From: Jennifer Sullivan < Jennifer.Sullivan@lung.org>

**Sent:** Tuesday, June 01, 2021 6:18 PM

**To:** Yeow, Aaron

**Subject:** Letter of Support for Dr. Jessica Castner for CASAC **Attachments:** ATT00001.txt; LOS\_Dr Jessica Castner\_5282021.pdf

Good afternoon Mr. Yeow,

Please accept this attached letter for the nomination of Dr. Jessica Castner for the Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC). This is an exciting honor and pleasure to be able to provide this for her, she is an amazing nurse scientist and would be an incredible addition to your committee.

Should you have any questions or concerns, please feel free to reply to this email or call my office at 716-271-6388.

Thank you and have a lovely evening.

Sincerely,

Jennifer Sullivan

Jennifer Sullivan, MS Ed

Director | Asthma Coalition of Erie, Monroe & Niagara Counties

Manager | Health Promotions

**American Lung Association in New York** 

2564 Walden Avenue | Suite 101 | Buffalo, NY 14225

O: 716-271-6388

Lung HelpLine: 1-800-LUNGUSA
Lung.org | Jennifer.Sullivan@lung.org



From: Ursula Nelson < Ursula.Nelson@pima.gov>

**Sent:** Tuesday, June 01, 2021 4:22 PM

To: Yeow, Aaron
Cc: Jessica Surridge

**Subject:** Matt Pace CASAC Nomination.pdf **Attachments:** Matt Pace CASAC Nomination.pdf

Attached is a letter of support for the nomination of Dr. Pace to CASAC. Thank you for your consideration of this nominations.

Ursula

Ursula Kramer Nelson, P.E., Director Pronouns: she/her/hers Pima County Department of Environmental Quality 520.724.7454

From: Langworthy, Cindy <clangworthy@hunton.com>

**Sent:** Tuesday, June 01, 2021 4:18 PM

**To:** Yeow, Aaron

**Subject:** Comments on the List of Candidates for the Environmental Protection Agency's Clean Air Scientific

**Advisory Committee** 

Attachments: NR3 Coalition Comments on Candidates for CASAC Membership-c.pdf

Mr. Yeow,

Please find attached comments by the NAAQS Regulatory Review and Rulemaking (NR3) Coalition on the list of candidates for membership posted on CASAC's website on May 10, 2021. Please let me know if you have and questions about these comments.

Best,

Cindy Langworthy



### **Lucinda Minton Langworthy**

Counsel clangworthy@HuntonAK.com p202.955.1525 bio | vCard

Hunton Andrews Kurth LLP 2200 Pennsylvania Avenue, NW Washington, DC 20037

HuntonAK.com

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From: Bill Boyd <bboyd@dffm.az.gov>
Sent: Tuesday, June 01, 2021 2:41 PM

**To:** Yeow, Aaron **Subject:** Letter of Support

**Attachments:** Matt Pace LOS 6\_1\_21.pdf

Dear Mr. Yeow,

Please find attached a letter of support for Matt Pace, CASAC nomination.

--

Bill Boyd Deputy Director Arizona Department of Forestry and Fire Management O. 602-771-5156



From: Eric Jantz <ejantz@nmelc.org>
Sent: Tuesday, June 01, 2021 2:35 PM

**To:** Yeow, Aaron

**Subject:** Nomination of Dr. Adrienne Hollis to CASAC

#### Dear Mr. Yeow:

I write to support Dr. Adrienne Hollis for appointment to the Clean Air Scientific Advisory Committee. I have worked in a coalition with Dr. Hollis for several years now, and Dr. Hollis' contribution to the work has been invaluable. Dr. Hollis provides rigorous scientific analysis to the civil rights issues that we address and is able to clearly translate complex scientific and technical concepts into easily understandable language for the layperson. Additionally, Dr. Hollis has demonstrated an unwavering commitment to equity for under-resourced communities and communities of color. Dr. Hollis will make important contributions to the CASAC if appointed.

Thank you for the opportunity to comment on Dr. Hollis's nomination.

Regards,

--

Eric Jantz Staff Attorney (he/him) New Mexico Environmental Law Center

Ph: 505-989-9022 x 120 Fax: 505-989-3769 ejantz@nmelc.org

https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.nmelc.org%2F&data=04%7C01%7CYeow.Aaron%40epa.gov%7Ca3ffa9733f0d4dba9c1c08d9252c07a4%7C88b378b367484867acf976aacbeca6a7%7C0%7C0%7C637581694048946926%7CUnknown%7CTWFpbGZsb3d8eyJWljoiMC4wLjAwMDAiLCJQljoiV2luMzliLCJBTil6lk1haWwiLCJXVCl6Mn0%3D%7C2000&cmp;sdata=X61l7JCn6RnglKy%2BL4Sp65hmYczsrEPSBgdls8qUTnU%3D&cmp;reserved=0

From: Alicia Race <alicia.race@gmail.com>
Sent: Tuesday, June 01, 2021 2:29 PM

**To:** Yeow, Aaron

**Subject:** Public Comment: EPA Clean Air Scientific Advisory Committee

#### Mr. Aaron Yeow:

I am writing to state my support for the appointment of Dr. Adrienne Hollis and Dr. Gretchen Goldman to the Environmental Protection Agency's Clean Air Scientific Advisory Committee. I work with Dr. Hollis and Dr. Goldman at the Union of Concerned Scientists. They both have valuable expertise which has been demonstrated in their public testimonies presented to Congress on issues of clean air and environmental justice, their scientific research and publications, and their professional and volunteer service on relevant committees. They both bring expertise from epidemiology and toxicology to their work with environmental justice communities on issues of climate, public health, and air quality matters. Dr. Hollis and Dr. Goldman are excellent candidates for CASAC and will provide valuable technical and scientific advice to the EPA Administrator if appointed.

Thank you, Alicia Race

From: Genna Reed <GReed@ucsusa.org>
Sent: Tuesday, June 01, 2021 1:55 PM

**To:** Yeow, Aaron

**Subject:** UCS Public Comment Re: CASAC List of Candidates

Attachments: UCS CASAC candidates public comment 6.1.21.pdf; FAC diversity letter\_FINAL 4.28.21.pdf

Good afternoon Mr. Yeow,

Please find attached a comment from UCS on the CASAC list of candidates posted on 5/10/21. I have also attached a copy of the letter UCS sent to EPA and other agencies on behalf of 16 organizations that includes recommendations for diversifying membership on scientific advisory committees. Please let me know if you have any questions.

Best,

Genna Reed Senior Analyst, Center for Science and Democracy she / her / hers

Union of Concerned Scientists | 1825 K Street NW, Suite 800 | Washington, D.C. 20006

Phone: 202-331-6940 | Email: GReed@ucsusa.org

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**From:** fitflydavis@aol.com

**Sent:** Tuesday, June 01, 2021 12:32 PM

**To:** Yeow, Aaron

**Subject:** Letter of Support for 2021 CASAC Nomination

**Attachments:** CASAC-James Boylan nomination-June 1 2021-RSD.pdf

Dear Mr. Yeow,

Please accept my attached letter in support of the 2021 CASAC nomination for James Boylan of the Georgia Environmental Protection Division. Thank you.

Sincerely,

R. Scott Davis

From: Beate Ritz <bri>Sent: Beate Ritz <bri>Volume 01, 2021 6:02 AM

**To:** Yeow, Aaron

**Subject:** Nomination to the CASAC of Dr. Christina H. Fuller

Dear Mr. Aaron Yeow;

I am delighted to recommend Christina H. Fuller for an appointment to the CASAC. Please allow me to introduce myself: I am a Professor of Epidemiology and Environmental Health at UCLA and the CA state mandated Center for Occupational and Environmental Health. I have recently served as President of the International Society for Environmental Epidemiology (ISEE) and currently serve as a CA Governor appointed member on the Scientific Advisory Board for the California State Air Toxics Assessment program. I also previously served on the US EPA Clean Air Scientific Advisory Committee (CASAC) to evaluate the science for carbon monoxide standards. I have been on the Clarivate most highly-cited authors list, meaning in the top 1% of the field globally in terms of citations by other researchers, in 2018. Air pollution research is one of my fields of professional expertise.

Dr. Fuller is a member of the International Society of Environmental Epidemiologists (ISEE) and its Capacity Building and Education Subcommittee. I have worked with Dr Fuller on the ISEE-CAPE committee and participated with her on panels at meetings where she presented her research. Thus, I am very aware of her professional standing and expertise and engagement. Christina H. Fuller is an Associate Professor of Environmental Health at the Georgia State University School of Public Health with and M.S. degree and Sc.D. degree in Environmental Health from the Harvard School of Public Health and a B.S. degree in Environmental Engineering from Northwestern University. Dr. Fuller has been active in the air pollution field for over 15 years and specializes in human exposure assessment, epidemiology, health disparities and community-based research. Her major interests are in the characterization of criteria air pollutants with an emphasis on ultrafine particles; estimation of cardiovascular health effects; documention of disparities and social vulnerabilities; and testing of exposure reduction technologies.

Dr. Fuller has served on review panels for the National Institute of Environmental Health Sciences (NIEHS), the Health Effects Institute and the Natural Environment Research Council (United Kingdom). She is an Editorial Board Member of the International Journal of Environmental Research and Public Health (IJERPH), and is currently editing a special issue on air pollution within Africa and the African Diaspora. Dr. Fuller recently released a co-edited book titled Ambient Combustion Related Ultrafine Particles and Health, which compiles the state of the science of ambient nanoparticles. In the past two years, Dr. Fuller has served as PI of an NIEHS-funded research grant testing the effectiveness of air pollution mitigation through green infrastructure. In addition, she served as PI on a community-engaged research project measuring air pollution near marine ports funded by New York Community Trust/Friends of the Earth. She teaches courses on air pollution, environmental justice and environmental health to both undergraduate and graduate students. In addition to ISEE, she also is a member of the International Society of Exposure Science (ISES) and its 2021 Technical Organizing Committee; as well as the American Public Health Association.

Dr Fuller has my full and enthusiastic support for appointment to the U.S. EPA CASAC!

Sincerely

Beate Ritz, MD, PhD
Professor of Epidemiology, Environmental Health, and Neurology
FSPH and SOM UCLA

From: Yoshira Ornelas Van Horne <yvanhorn@usc.edu>

**Sent:** Monday, May 31, 2021 11:43 PM

**To:** Yeow, Aaron

**Subject:** Support for Dr. Christina H. Fuller membership into the CASAC

Mr. Aaron Yeow,

I am writing to express my support for **Dr. Christina H. Fuller's** membership into the Clean Air Scientific Advisory Committee (CASAC) of the USEPA. Dr. Fuller is an Associate Professor of Environmental Health at the Georgia State University School of Public Health. Dr. Fuller has extensive expertise in the field of air pollution and for over 15 years has specialized in bridging the gap between measuring air pollution and assessing disparities and social vulnerabilities. Additionally, she has served on numerous review panels at the National and Internation level and is an Editorial Board Member of the International Journal of Environmental Research and Public Health (IJERPH). Dr. Fuller will be an outstanding member of the CASAC and contribute valuable input to the committee.

Thank you,

Yoshira Ornelas Van Horne, PhD Postdoctoral Research Associate Division of Environmental Health Department of Preventive Medicine University of Southern California

From: Sutyajeet Soneja <sisoneja@gmail.com>

**Sent:** Monday, May 31, 2021 11:42 PM

**To:** Yeow, Aaron

**Subject:** Public comment in support of Dr. Crystal Upperman as a candidate for EPA's Clean Air Scientific

**Advisory Committee** 

Dear Dr. Aaron Yeow,

I hope this finds you well. My name is Sut Soneja and I am an environmental health scientist specializing in the fields of air pollution, climate change, and health systems and am writing to inform you of my support of Dr. Crystal Upperman, who has been nominated to serve on the U.S. Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC). I believe Dr. Upperman would offer an informed and fresh perspective if given the opportunity to serve on the CASAC. She currently leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Dr. Upperman's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. She is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Dr. Upperman earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health. Her experience spanning multiple sectors and working with many stakeholders will serve the EPA well with a perspective that is visionary and technically impressive. I am happy to address any questions you may have about Dr. Upperman and her qualifications. To provide you with an overview of my own background, I am providing a short bio below my signature line. Thanks you for your time and consideration of Dr. Upperman's candidacy for the CASAC.

Kind regards,

--

# Sutyajeet I. Soneja, PhD

Senior Advisor | Vital Strategies

Consultant | UNDP

2016-'18 AAAS Fellow | USAID

2017 Embassy Science Fellow | US Department of State (US Embassy Rome)

sisoneja@gmail.com | LinkedIn

Dr. Sut Soneja is a global public health scientist, policy advisor, and biomedical engineer with 15+ years of experience and a passion to improve health outcomes in resource-poor settings by advancing innovation in healthcare. He possesses a Ph.D. in Public Health from the Johns Hopkins Bloomberg School of Public Health, dual Bachelor of Science degrees in Biomedical and Biological Engineering from NC State University, and is a former Science & Technology Policy Fellow via the American Association for the Advancement of Science (AAAS) that was served at the U.S. Agency for International Development. His dissertation work focused upon conducting interdisciplinary field research in South Asia studying air pollution, climate change, and maternal & child heath, while his AAAS fellowship focused upon health system strengthening in West Africa as a part of the post Ebola recovery effort. He has also completed a postdoctoral fellowship in epidemiology analyzing large datasets using advanced statistical techniques to assess the impact of climate change upon health, served as a science diplomat focusing on global health topics at the U.S. Embassy in Italy, independently consulted for a multitude of international organizations such as the World Health Organization, UN Refugee Agency, and UN Development Programme, as well as worked for a Fortune 500 company on veterinary health as an engineer. He has worked extensively across four continents and presented to a wide-array of audiences that range from high-level ministry officials to the general public, as well as written numerous academic papers, policy briefs, and opinion articles.

From: Freada Klein <fklein@kapor.com>
Sent: Monday, May 31, 2021 8:44 PM

To: Yeow, Aaron

**Subject:** CASAC Comment on Dr. Crystal Romeo Upperman **Attachments:** CASAC Comment - Crystal Upperman 05-31-21 .pdf

From: Robert White <robert.c.whiteii@gmail.com>

**Sent:** Monday, May 31, 2021 6:20 PM

**To:** Yeow, Aaron

**Subject:** Public Comment for Dr. Upperman

**Attachments:** CASAC Comment - Crystal Upperman .docx

Mr. Yeow,

Please find my public comment in support of Dr. Upperman.

Best,

**Robert White** 

Frank Bove <bovefrank@bellsouth.net>

**Sent:** Monday, May 31, 2021 3:24 PM

**To:** Yeow, Aaron

**Subject:** Clean Air Scientific Advisory Committee (CASAC)

Dear Mr. Aaron Yeow.

I am writing to endorse Dr. Christina Hemphill Fuller for membership on the Clean Air Scientific Advisory Committee of the USEPA. I am a senior epidemiologist at ATSDR and have known about the work of Dr. Fuller for several years. Dr. Fuller is committed to the inclusion of those historically absent from environmental advisory committees such as women and people of color. She is an expert on the health effects of ultrafine particles as well as criteria air pollutants, has expertise in exposure reduction technologies, and has documented the environmental and health disparities of exposures to air pollutants. She recently co-edited the book, Ambient Combustion Ultrafine Particles and Health (2021) and has served on review panels for NIEHS, HEI and the Natural Environment Research Council (UK). Please consider Dr. Fuller for membership on CASAC.

Thank you.

Frank J. Bove, Sc.D, MS Senior Epidemiologist ATSDR/CDC

From: Steve Milloy <milloy@me.com>
Sent: Monday, May 31, 2021 12:47 PM

**To:** Yeow, Aaron

**Subject:** Public comment on CASAC candidates

May 31, 2021

Mr. Aron Yeow
Designated Federal Officer
EPA CASAC

Dear Mr. Yeow,

I am submitting comments concerning candidates for CASAC, as requested on May 10, 2021.

I have both general comments related to the panel member selection process and specific comments on candidates.

#### In summary:

- Strive for balance and objectivity. The law requires CASAC to be balanced in terms of points of view. Prior to 2017, CASAC had devolved into a system cronyism where CASAC members with nearly identical viewpoints often reviewed and rubberstamped the results of their own or their colleagues' EPA-funded research. There also exists the problem of certain candidates (e.g., individuals who have received tens of millions in EPA research grants) having undue influence over more junior colleagues
- Avoid financial conflicts of interest. EPA should avoid selecting candidates with a financial relationship with the
  agency. This principle should exclude those candidates who have received or otherwise benefitted from one or
  more research grants from EPA within the past five (5) years. Moreover selected candidates should agree in
  writing to not seek, accept or help their institutions obtain research grants from EPA during the next five (5)
  years.
- No candidates who have participated or benefitted from unethical or illegal research. A number of the candidates for CASAC have conducted, participated in or have benefitted from affiliation with unethical/illegal human clinical experiments with air pollutants. No one who is associated with these unethical/illegal human experiments should be permitted to serve on CASAC.

#### 1. General Comment on Panel Selection

An overall concern is that the new CASAC will not be balanced as is required by law.

The Clean Air Act, 42 U.S.C. § 7409(d)(2) requires that an independent scientific advisory board be named by the Administrator of the EPA which every five years completes a review of the national primary and secondary ambient air quality standards and recommends any new national ambient air quality standards or revisions of existing criteria and standards. Pursuant to this the EPA has created the Clean Air Scientific Advisory Committee (CASAC), and subcommittees beneath the CASAC which deal with particular areas related to air quality such as air monitoring, oxides of nitrogen, sulfur oxides, and particulate matter.

The formation of this mandated committee and these subcommittees falls under the requirements of the Federal

Advisory Committee Act (FACA), which imposes requirements upon such bodies, and gives content to the words used to authorize the creation of such committees. FACA specifically notes that any legislation authorizing the creation of an advisory committee or panel shall "contain appropriate provisions to assure that the advice and recommendations of the advisory committee will not be inappropriately influenced by the appointing authority or by any special interest" 5 U.S.C., §5 (3) appx. In the Clean Air Act such a provision is contained through the requirement that the committee being formed and thus and subcommittees being formed beneath it are "independent." 42 U.S.C. § 7409(d)(2)(a).

The Federal Advisory Committee Act also requires that all committee formed "be fairly balanced in terms of the points of view represented." 5 U.S.C., §5 (2) appx. In determining whether a committee is fairly balanced courts look to the purpose of the committee, or as here the panel. "In considering whether a committee is fairly balanced... courts naturally have looked first at the functions to be performed." Cargill, Inc. v. U.S., 173 F.3d 323 (5th Cir.1999). This Court has stated that "the legislative history makes clear, the "fairly balanced" requirement was designed to ensure that persons or groups directly affected by the work of a particular advisory committee would have some representation on the committee" Washington Legal Foundation v. American Bar Ass'n., 648 F.Supp. 1353 (D.D.C. 1986).

Thus the test for whether a committee or panel is 'fairly balanced' turns on the purpose for the creation of the committee. Here the Clean Air Act speaks to the overall purpose of the CASAC committee. Its job is to review the proposals put forth by the agency under the act and to recommend any new standards or revisions of current standards it deems necessary. 42 U.S.C. § 7409(d)(2)(b). To do so the committee must hold a balanced set of views on the topic by those within the scientific community.

#### 2. Comments on Specific Candidates

Below are comments on specific candidates.

### a. EPA Research Grant Recipients

The following candidates have previously received grants from EPA and may be reasonably suspected of being biased toward the agency. The total value of EPA grant money associated with each candidate is in parentheses. **Candidates** associated with grants in excess of \$5 million are bolded. *Candidates associated with grants awarded in the past five years are italicized*.

- Sara Adar (\$34,198,307)
- John R. Balmes (\$24,607,626)
- Michelle Bell (\$29,214,550)
- James Boylan (\$229,770)
- Judith Chow (\$449,456)
- Jane Clougherty (\$1.549,998)
- Deborah Cory-Slechta (\$9,250,000)
- Gregory Diette (\$8,883,692)
- Charles T. Driscoll (\$7.437,921)
- Mark W. Frampton (\$36,197,366)
- Terry Gordon (\$29,550,367)
- Jack Harkema (\$64,468,114)
- Daven Henze (\$1,389,820)
- Amy Herring (\$1,139,238)
- Jason Hill (\$10,000,000)
- Tracey Holloway (\$4,462,625)
- Ilona Jaspers (\$9,800,000)
- Michael Jaycock (\$749,991)
- Joel Kaufman (\$55,420,682)
- Howard Kipen (\$6,343,825)

- Michael T. Kleinman (\$37,009,432)
- Petros Koutrakis (\$38,601,403)
- Nicolai Kuminoff (\$194,374)
- Brian LaFranchi (\$77,793)
- Bruce Lanphear (\$3,714,505)
- Monica Mazurek (\$499,150)
- V. Faye McNeill (\$799,699)
- David Peden (\$9,800,000)
- Richard Peltier (\$700,000)
- Andrea Polidori (\$749,820)
- Jeremy Sarnat (\$21,268,423)
- Joel Schwartz (\$45,965,580)
- Noelle Selin (\$10,682,118)
- Elizabeth (Lianne) A. Sheppard (\$65,543,082)
- William Stubblefield (\$449,448)
- Helen Suh (\$18,779,788)
- George Thurston (\$10,049,512)
- Barbara Turpin (\$6,955,783)
- Grgeory Wellenius (\$7,747,040)
- Jason West (\$1,088,625)

#### b. Other comments on specific candudates

The following candidates are unqualified to serve on CASAC for the conduct described.

- Mark Frampton is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g.,
  - https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7787/report/200 6.
- **Jack Harkema** is associated with human clinical research involving particulate matter that is either unethical or illegal. See e.g.,
  - https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/1087.
- **Joel Kaufman** is associated with human clinical research involving particulate matter that is either unethical or illegal. See e.g,.
  - https://cfpub.epa.gov/ncer abstracts/index.cfm/fuseaction/display.abstractDetail/abstract id/6241.
- **Michael Kleinman** is associated with human clinical research that is unethical or illegal. See e.g., https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/1087.
- **Petros Koutrakis** is associated with human clinical research that is unethical or illegal. See e.g., https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739.
- **Joel Schwartz** is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g., <a href="https://cfpub.epa.gov/ncer">https://cfpub.epa.gov/ncer</a> abstracts/index.cfm/fuseaction/display.abstractDetail/abstract id/7739.
- **Helen Suh** is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g., https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739.
- **Elizabeth Sheppard** is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g.,
  - https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6239
- **George Thurston** is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g.,
  - https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6088

If you have any questions about these comments or require more detail please don't hesitate to contact me. Sincerely,

Steve Milloy Publisher, <u>JunkScience.com</u>

From: Valerie Aarne (Grossman) <valerie210@aol.com>

**Sent:** Monday, May 31, 2021 9:10 AM

**To:** Yeow, Aaron

**Subject:** CASAC Public Comment

## Dear Mr. Yeow:

Thank you for this opportunity to comment on Dr. Jessica Castner's application for an appointment to CASAC.

As you can see from Dr. Castner's application, she has dedicated her career to the health of others in a variety of different ways. She is an active member of many different organizations, always seeking to learn more, do more, teach more, and reach a larger audience with information regarding the issue at hand.

As a nurse, she is witness firsthand to the effects air pollution has on our population. Patients struggle to maintain health, and nurses are intimately involved with those patients and their struggles. Patients continue to trust nurses, to help them in reaching their health goals. Nurses are scientists who touch patients ... and we are scientists who are touched **BY** patients.

Having a nurse scientist on this advisory council is of utmost importance. You will have direct quality information from the front line of healthcare, the intimate thoughts of patients, as well as research and current evidence affecting our world.

Dr. Castner is driven, ethical, intelligent, and always choosing the higher moral ground.

Thank you for allowing me to share my recommendation with you.

Valerie Aarne Grossman

Valerie Aarne (Valerie Aarne Grossman) She/Her Macedon, NY

Emergency Nursing: 5 Tier Triage Protocols Essentials for the Radiology Nurse Fast Facts for the Radiology Nurse Fast Facts for the Triage Nurse Essentials for the Triage Nurse

From: danielle.vienneau@swisstph.ch
Sent: Monday, May 31, 2021 7:24 AM

**To:** Yeow, Aaron

**Subject:** Support for CASAC nomination - Dr. Christina Fuller

#### Dear Mr. Aaron Yeow.

I would like to express my support for Dr. Christina Fuller to become a member of the Clean Air Scientific Advisory Committee of the USEPA given her scientific and technical expertise in air pollution exposure assessment and epidemiology. Dr Fuller is also a valued member of the International Society for Environmental Epidemiology (ISEE), and I've had the great pleasure of working with her in the Capacity Building and Education committee where she is one of the most active members. In our exchanges, she has demonstrated time and again to be highly motivated and a strong advocate for professional development and mentoring of younger researchers. In addition to her technical expertise and knowledge, as a woman of color Dr. Fuller would bring with her a broader perspective and her voice for those historically absent from committees like this. Kindly accept this nomination for Dr. Christina Fuller.

with warm regards, Danielle

\_\_\_\_\_\_

#### PD Dr. Danielle Vienneau

Assistant Professor/Senior Lecturer (Habilitation)
Co-group leader Environmental Exposure Modelling
Department of Epidemiology and Public Health
tel: +41 (0)61 284 8398
danielle.vienneau@swisstph.ch

Swiss Tropical and Public Health Institute Socinstrasse 57, 4051 Basel, Switzerland www.swisstph.ch

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From: Levy, Jonathan I <jonlevy@bu.edu>
Sent: Friday, May 28, 2021 4:23 PM

**To:** Yeow, Aaron

**Subject:** comments on two CASAC nominees

I am writing to support the nominations of Drs. Gregory Wellenius and Christina Fuller for CASAC. I am Professor and Chair of the Department of Environmental Health at Boston University School of Public Health. Dr. Wellenius is a Professor and Director of the Program on Climate and Health in our department, and I previously collaborated with Dr. Fuller when she was a doctoral student at Harvard School of Public Health, where I served on the faculty.

Dr. Wellenius is an environmental epidemiologist with substantial expertise in cardiovascular effects of air pollution as well as the effects of climate change on health. He is a prolific scholar who has worked across numerous cohort studies as well as large administrative datasets to yield highly relevant epidemiological insights. In 2019, he was awarded the Tony McMichael Mid-Term Career Award by the International Society for Environmental Epidemiology (ISEE), which is awarded to someone who demonstrates excellence in science, teaching, and translation of environmental epidemiology, a clear sign of Dr. Wellenius's prominence in the field. He has been involved in numerous relevant advisory committees in the past, and in general, is a consensus-builder who always adds productively to group conversations.

Turning to Dr. Fuller, her research has demonstrated diverse intellectual skills (including environmental epidemiology, exposure science, fieldwork, and statistical analysis) with an emphasize on characterizing exposures to traffic-related air pollutants and the resultant health effects. Her research has had a strong emphasis on environmental justice, including multiple community-engaged research projects. She could therefore provide relevant insight across multiple Agency deliberations related to criteria air pollutants, building upon her interdisciplinary training in environmental engineering and environmental health as well as her skills in research translation. Dr. Fuller is also active in relevant scientific societies and has achieved a strong reputation in the field. As a woman of color, she would also add an important perspective to Agency committee deliberations that has often been lacking.

Please let me know if you have any questions or require any additional information.

Jonathan Levy
Professor and Chair
Department of Environmental Health
Boston University School of Public Health
715 Albany St., T4W
Boston, MA 02118-2526
PH: 617-358-2460

FAX: 617-358-2642 email: jonlevy@bu.edu Twitter: @jonlevyBU Pronouns: he/him/his

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From: Cohen, Samuel M <scohen@unmc.edu>

**Sent:** Friday, May 28, 2021 12:09 PM

**To:** Yeow, Aaron

**Subject:** Letter in support of Dr. Sabine Lange for CASAC

**Attachments:** Scanned\_from\_a\_Lexmark\_Multifunction\_Product05-28-2021-110800.pdf

Samuel M. Cohen, MD, PhD Havlik Wall Professor of Oncology Department of Pathology & Microbiology University of Nebraska Medical Center 983135 Nebraska Medical Center Omaha, NE 68198-3135

402-559-6388 scohen@unmc.edu

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From: Russell, Armistead G <ar70@gatech.edu>
Sent: Wednesday, May 26, 2021 9:32 PM

**To:** Yeow, Aaron

**Subject:** Support for Jim Boylan's (re-) appointment to CASAC

Aaron,

I am writing in support of Jim Boylan's nomination to be reappointed to CASAC. Over the past 20 years, Dr. Boylan has been providing scientific technical support to Georgia EPD in the form of air quality modeling, emission inventory development, policy recommendations, and state rulemaking. This work has allowed Georgia EPD to develop designation recommendations, attainment demonstrations, and maintenance plans for ozone, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>2</sub> and lead. In addition, many of the Georgia air quality rule revisions and PSD permit approvals were supported by his technical work. Dr. Boylan's efforts to integrate new scientific developments into the NAAQS implementation and planning efforts has made the Georgia EPD modeling team one of the most advanced state air quality modeling groups in the country.

While getting his Ph.D. at Georgia Tech under my supervision, Dr. Boylan was the lead modeler for the Southern Appalachian Mountains Initiative (SAMI) project and was awarded the "Outstanding Ph.D. Thesis Award" the for the best Ph.D. dissertation in the Georgia Tech School of Civil and Environmental Engineering in 2002.

While at GA EPD he was the SESARM technical lead for multiple regional air quality modeling projects that were contracted to Georgia Tech. As part of these projects, he was able to further develop the modeling science and provide needed technical support to allow the ten SESARM states to more efficiently implement the ozone and PM<sub>2.5</sub> NAAQS. His ability to merge advanced research science with practical NAAQS implementation is demonstrated in the 11 journal articles we have authored together.

Dr. Boylan is also experienced in how CASAC operates. He served on the CASAC Sulfur Oxides Review Panel from 2014-2018 and the chartered CASAC from 2017-2021. Dr. Boylan's background and experience with criteria air pollutants can help bridge the gap between the health impacts research community and the air agencies that need to implement the NAAQS.

Cheers,

Ted

Armistead (Ted) Russell Howard T. Tellepsen Chair and Regents' Professor School of Civil and Environmental Engineering Georgia Institute of Technology Atlanta, GA 30332 404-894-3079

From: Wood,Richard <rwood@mdanderson.org>

**Sent:** Wednesday, May 26, 2021 5:07 PM

**To:** Yeow, Aaron

**Subject:** Endorsement of Dr. Sabine Lange for CASAC

**Attachments:** Lange\_Wood.pdf

Dear Mr. Yeow,

Please see the attached letter with my endorsement.

Sincerely,

Richard D. Wood, PhD, FRS
J Ralph Meadows Chair in Carcinogenesis
Department of Epigenetics & Molecular Carcinogenesis
University of Texas MD Anderson Cancer Center
P.O. Box 389, 1808 Park Road 1C,
Smithville, TX 78957

tel 512 237 9431 (office)

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From: Peggy Shepard <peggy@weact.org>
Sent: Wednesday, May 26, 2021 7:32 PM

**To:** Yeow, Aaron

**Subject:** Public Comment for CASAC **Attachments:** Final AYeow Ltr 052021.pdf

Dear Mr. Yeow,

Attached please find my comments regarding the candidates for the CASAC. Please confirm it has been received.

Regards, Peggy Shepard

### Peggy M. Shepard Executive Director WE ACT for Environmental Justice 1854 Amsterdam Ave., 2nd Floor New York, NY 10031 212-961-1000, ext. 306

W atch our s tory

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From: David Reilly <dreilly@niagara.edu>
Sent: Wednesday, May 26, 2021 4:51 PM

**To:** Yeow, Aaron

**Subject:** Castner Nomination for CASAC

**Attachments:** Letter of Support - Castner CCWE - CASAC.pdf

Dear Mr. Yeow,

As a Designated Federal Officer for the CASAC nomination process, I ask that you consider this letter of support on behalf of Dr. Jessica Castner's nomination for the committee (attached).

With best regards,

**Dave Reilly** 

--

Dave Reilly, Ph.D.
Chair, Political Science Dept.
Director, International Studies Program
Coordinator, International Humanitarian Assistance Program
Coordinator, Justice House Living & Learning Communities
117 Timon Hall, C.B. 2207
Niagara University, NY 14109

From: Maureen Quinn <sciencementorsnj@gmail.com>

**Sent:** Wednesday, May 26, 2021 9:56 AM

**To:** Yeow, Aaron

**Subject:** Crystal Romeo Upperman - US EPA Clean Air Scientific Advisory Committee

# Dear R. Aaron Yeow,

I have looked through the academic journeys of the nominees and they are impressive but overwhelming. For me, Integrity, mission commitment and work ethic have been my north star when choosing team members and when recommending people to other organizations.

Crystal was a mentee in our program when she was a high school student. Smart, determined with a mind of her own best describes her. After graduating high school she gave up scholarship dollars from one university to follow her dream to attend Spelman. There was no way, said the many. Crystal found a way.

The same year, Crystal reached out to me to say, Ms. Quinn I've gotten a job on the campus and want to give back when I come home to Trenton on the holidays.

She not only returned to thank us for inspiring her to choose a major that she had not yet thought of, Environmental Science but she gave us two \$100. bills which I, in turn, gave to a young Trenton man for his college books etc. He went on to graduate Rowan U. with a B.S. and Master's Degree. He now leads a business that restores houses much in need of help and sells/rents them at reasonable rates. Crystal graduated Spelman and returned to mentor a Trenton High girl. Their topic focused on Cancer Alley. During her ongoing education, she found time to support, with us, an event at Princeton U. for young underserved girls.

The girl from Trenton went on to get a Ph.D from University of Md. in Marine Estuarine Environmental Sciences and came one week later to our Science Fair to talk with the students. Crystal is the real deal.

This year, Crystal and I have been probing ways to deepen my commitment to our mission this year. "There is no Climate Justice without Racial Justice". Our evolving website can give you an insight in to our work. ScienceMentors.org - I am not a scientist but I am an educator who applies scientific thinking to our work. We are excited about the Carbon Capture that a renewal of traditional agricultural approaches can bring to the present day technology.

I strongly recommend Crystal Romeo Upperman because she has in depth knowledge along with a practical approach to bring new life to what my experience tells me can be a deadly slow moving process. The Planet's hair is on fire and science can cool it if a sense of urgency is applied. Crystal Romeo is unrelenting when she is on a misson. We need strong people like Crystal who can wield expertise for the good of human kind.

Sincerely, Maureen J. Quinn ScienceMentors.org

Maureen Quinn ScienceMentors (609) 903-5150

From: Gail Good <gail.good13@gmail.com>
Sent: Tuesday, May 25, 2021 4:38 PM

**To:** Yeow, Aaron

**Cc:** bart.sponseller@charter.net

**Subject:** FY2022 Nominations for Clean Air Scientific Advisory Committee (CASAC) Membership

#### Dear Mr. Yeow:

I am writing to you on behalf of myself and my colleague, Mr. Bart Sponseller, in response to your invitation for public comment on the candidate list for the Clean Air Scientific Advisory Committee. With this letter we wish to express our deep support for Dr. Tracey Holloway from the University of Wisconsin – Madison. While we both work on air quality matters for the Wisconsin Department of Natural Resources, we are not representing the Department of Natural Resources (DNR) in an official capacity in this comment, but we both have known Dr. Holloway in a professional capacity for over a decade.

Dr. Holloway has been a member of the Wisconsin DNR Air Management Study Group and it is through this participation that Mr. Sponseller and I know Dr. Holloway well. She is an outstanding collaborator and provides meaningful representation for the air quality research community. Dr. Holloway excels at taking her vast applied science knowledge and translating it to the policy realm. She is sought out both in Wisconsin and nationally for her tremendous ability to bring scientific concepts to implementable practices within the air quality protection community: research, regulatory, and beyond.

Dr. Holloway serves as the lead for the NASA Health and Air Quality Applied Sciences Team. Through her leadership, atmospheric scientists working in partnership with US air quality managers exploit the power of Earth Science tools to address air quality issues. The Team conducts a wide range of projects using satellite data, suborbital data, and models, and works with air quality agencies at the local, state, regional, and national level. This is yet another example of how she takes seriously the opportunity to utilize highly sophisticated technology to create tools that may be used by air quality agencies to help solve air pollution problems across the country.

Dr. Holloway is an exceptional candidate for the Clean Air Scientific Advisory Committee. She possesses the scientific credentials and disciplinary expertise you are seeking, commits time to everything she takes on, and has a unique background and talents that would allow her to be a valuable contributor to this committee. Dr. Holloway's critical understanding of the importance of air quality and the protection of public health will serve her well as a member of the Clean Air Scientific Advisory Committee.

Thank you for the opportunity to provide this letter of support for Dr. Tracey Holloway.

From: Karen Monsen <mons0122@umn.edu>

**Sent:** Tuesday, May 25, 2021 1:46 PM

**To:** Yeow, Aaron

**Subject:** Jessica Castner - CASAC

Dear Mr. Yeow,

I support Dr. Castner's nomination for CASAC for the following reasons.

I have known and worked with Dr. Castner for many years, and consider her a world-class expert in this area. CASAC must include a member with nursing expertise. Nurses make up the largest proportion of any individual discipline in the entire health care field. Nurses have been voted by the public annually as the most trusted profession for nearly two decades. Further, in tribal, rural, and underserved communities where environmental justice issues are paramount to human health, nurses may be the only member of the health care team accessible to the public or with experience understanding health care needs in these populations.

Dr. Castner has published multiple research studies on the impact of air pollution on human health in several nursing and interdisciplinary journals that demonstrate her scientific and technical expertise needed to contribute to CASAC uniquely.

Dr. Castner has both content and methodological expertise on one of the vital population epidemiology designs used by the EPA in the integrated science and standard-setting process.

Dr. Castner's published research includes testing the associations of air pollutants and pollutant mixtures with population emergency department visits. Her depth of understanding as a clinician-scientist about the biological plausibility and validity of the outcome measures enable her critical contributions to CASAC.

Dr. Castner is also a clinical expert in civic engagement and health care workforce education on the topics. Actively engaged in the American Academy of Nursing's expert panels as an active and reliable contributor, Dr. Castner demonstrates an availability and willingness to serve and a proven record of working constructively and effectively on interdisciplinary and nursing committees.

Dr. Castner conducts herself with impartiality as a scientific advisor, well-versed in the scientific evidence and underlying uncertainties.

Dr. Castner combines this impartiality with an exceptional ability to communicate scientific findings with people from all walks of life.

Dr. Castner has served as a member of the Informatics and Technology Expert Panel of the American Academy of Nursing for three years.

Fellowship in the academy denotes substantial impact in the field with a national or international reach.

In summary, I support Dr. Jessica Castner's nomination for CASAC.

--

Karen A. Monsen, PhD, RN, FAMIA, FNAP, FAAN

Professor | School of Nursing | www.nursing.umn.edu

Chair | Population Health and Systems Cooperative | phs.nursing.umn.edu

Director | Center for Nursing Informatics | www.nursing.umn.edu/icnp/index.htm

Director | Omaha System Partnership | omahasystempartnership.org

University of Minnesota | umn.edu

mons0122@umn.edu | 612-624-0490

Intervention Effectiveness Research: Quality Improvement and Program Evaluation

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From: Courtney O'Neal <courtneyoneal83@gmail.com>

**Sent:** Tuesday, May 25, 2021 1:17 PM

**To:** Yeow, Aaron

**Subject:** Crystal Upperman CASAC Nomination

Hi Mr. Yeow,

My name is Courtney O'Neal and I'm writing you to support the nomination of Cyrstal Upperman for CASAC board member. I have known Crystal for more than a decade and she will be an excellent addition to your board.

Sincerest Regards, Courtney O'Neal

From: Irvine, Robert (EGLE) <IRVINER@michigan.gov>

**Sent:** Tuesday, May 25, 2021 8:14 AM

**To:** Yeow, Aaron **Subject:** CASAC participant

Hello Aaron, I recommend Brian Hughes as a member of CASAC. I work with Brian and believe him to be a good candidate. He is very knowledgeable in the toxics arena and has a wide background in topics relevant to CASAC work.

Bob Irvine Supervisor, SIP Development Unit Air Quality Division, EGLE

From: Robin Dodson <dodson@silentspring.org>

**Sent:** Monday, May 24, 2021 8:57 AM

**To:** Yeow, Aaron

**Subject:** CASAC: in support of Christina Fuller

Mr. Yeow,

I am writing in support of Dr. Christina Fuller's nomination to EPA's CASAC. I have known Dr. Fuller for nearly 15 years. We first met when we were both graduate students in the Department of Environmental Health at the Harvard T.H. Chan School of Public Health. Dr. Fuller is well qualified to provide scientific and technical expertise to the committee. Her experience with community-based air pollution studies provides a unique and important perspective that will strengthen deliberations by the committee. As a woman of color, Dr. Fuller also represents a group traditionally under-represented on national scientific committees. Dr. Fuller is an excellent candidate for the CASAC.

Please feel free to contact me if you have any questions.

Sincerely, Robin Dodson

Robin Dodson, Sc.D.
Research Scientist
Silent Spring Institute
Leading environmental health research to identify opportunities for prevention
320 Nevada St, Suite 302, Newton, MA 02460
617-332-4288 x229
www.silentspring.org

From: Randall Cerveny <a href="mailto:cerveny@asu.edu">cerveny@asu.edu</a>

**Sent:** Friday, May 21, 2021 1:43 PM

**To:** Yeow, Aaron

**Subject:** CASAC Recommendation: Dr. Matt Pace

**Attachments:** Pace\_casac.pdf

To: Mr. Aaron Yeow, Designated Federal Officer

I have been asked to write a letter of recommendation in support of one of my former top graduate students, **Dr. Matt Pace**, for the **EPA Clean Air Scientific Advisory Committee (CASAC)**. It is my extreme and delightful pleasure—and honor— to be able to do so. Without question, Dr. Matt Pace has become one of my very best graduate students in my 34 years of teaching, which now includes mentoring over 30 Ph.D. graduates and 40 Masters students, some of whom are now Distinguished Professors and senior members of NOAA research facilities. I give him **my highest possible recommendation**, something I have only done three times over the past 34 years. Why?

First, Matt Pace is incredibly smart. He simply excelled in all the courses that he took from me and wrote a landmark dissertation on the use of isentropic map analysis on forecasting tornadoes published in the flagship journal of Geography, the Annals of the American Association of Geographers. More importantly, his recent ground-breaking work with me after graduation on evaluating the highest temperature ever recorded on the Earth for the World Meteorological Organization (part of the United Nations) has become one of the highest viewed research articles in the profession (El Fadli et al. 1913 in the Bulletin of the American Meteorological Society).

Second, he is one of the most effective communicators who I have ever seen. His work as a broadcast meteorologist for NBC12 in Phoenix was, simply, top-notch. His ability to take a complex subject like meteorological forecasting and make it understandable to the general public is simply, in my opinion, unmatched. He has continued using those communication skills in effectively promoting fire/smoke management and ozone pollution management for the State of Arizona at his current position within the Arizona Department of Environmental Quality,

Third, Matt Pace is a workaholic. Since finishing his graduate research, his work as a lead meteorologist—with specific application for smoke management—for the Arizona Department of Environmental Quality has undoubtedly saved vast amounts of valuable property. And it probably even saved lives within the state of Arizona. In recent years, wildfires—and consequently wildfire management—have been critical in the western states. It is most satisfying to see a scientist of Dr. Matt Pace's incredible quality heading up such important work for the state of Arizona!

But, fourth and most importantly (to me), Matt Pace's research continues to be at the very vanguard of science! He and I (and a team of other meteorologists) are currently developing a complex ranking system (similar to the tornado "fujita scale" or the hurricane "saffir-simpson scale") for categorizing dust storm events within Arizona. Obviously, upon completion, such innovative and landmark research, that directly involves air quality, will have great ramifications for the Environmental Protection Agency.

In summary, as one of my past graduate students, Dr. Matt Pace was quite simply a superb investigator. Since his graduation, that investigator has become a disciplined scholar and valued researcher. I am honored to have the opportunity to recommend him. As I mentioned above, I would rank Dr. Matt Pace as

one of my **very best** graduate students in my 34 years of teaching. Without hesitation, <u>Dr. Matt Pace receives my highest recommendation</u> for a seat on the **EPA Clean Air Scientific Advisory Committee** (**CASAC**). Quite simply, this is a no-brainer – he's the best and the quality of his research is quite simply topnotch!

Please feel free to contact me if you have any questions regarding this recommendation.

Randall S. Cerveny President's Professor of Geographical Sciences, Arizona State University World Meteorological Organization/United Nations' Rapporteur of Extreme Weather

--\*\*\*\*\*

Randall S. Cerveny President's Professor of Geographical Sciences School of Geographical Sciences & Urban Planning Arizona State University Tempe AZ 85287-5302

From: Haynes, Erin <erin.haynes@uky.edu>
Sent: Thursday, May 20, 2021 8:46 PM

**To:** Yeow, Aaron

**Subject:** Recommendation for CASAC Nominee

Dear Dr. Aaron Yeow,

I am writing to fully support Dr. Christina Fuller's nomination for the Clean Air Scientific Advisory Committee.

Dr. Christina H. Fuller is an Associate Professor of Environmental Health at the Georgia State University School of Public Health. Dr. Fuller received her M.S. degree and Sc.D. degree in Environmental Health from the Harvard School of Public Health and her B.S. degree in Environmental Engineering from Northwestern University. Dr. Fuller has been active in the air pollution field for over 10 years and specializes in human exposure assessment, epidemiology, health disparities and community-based research. Her expertise includes the characterization of criteria air pollutants, as well as extensive knowledge of ultrafine particles; estimating cardiovascular health effects; documenting disparities and social vulnerabilities; and testing exposure reduction technologies.

Dr. Fuller has served on review panels for the National Institute of Environmental Health Sciences (NIEHS), the Health Effects Institute and the Natural Environment Research Council in the United Kingdom. She is an Editorial Board Member of the International Journal of Environmental Research and Public Health (IJERPH), and is currently editing a special issue on air pollution within Africa and the African Diaspora. Dr. Fuller recently released a co-edited book titled *Ambient Combustion Related Ultrafine Particles and Health*, which compiles the state of the science of the very smallest particles. Within the past two years, Dr. Fuller has served as PI of an NIEHS-funded research grant testing the effectiveness of air pollution mitigation through green infrastructure. In addition, she served as PI on a community-engaged research project measuring air pollution near marine ports funded by New York Community Trust/Friends of the Earth. She teaches courses on air pollution, environmental justice and environmental health to both undergraduate and graduate students. Dr. Fuller is a member of the International Society of Environmental Epidemiologists (ISEE) and its Capacity Building and Education Subcommittee; the International Society of Exposure Science (ISES) and its 2021 Technical Organizing Committee; and the American Public Health Association. In her roles on the TOC for the ISEE 2021 meeting, Dr. Fuller is leading the organization of Affinity groups for scientists of color. Her leadership is remarkable.

I also believe that inclusivity is necessary to ensure sound advice to USEPA regarding current and future air quality issues. In addition to the traditional technical expertise for this committee that Dr. Fuller is well-qualified to perform, I believe there should be representation from those historically absent from such bodies, in particular people of color and women. Thus, Dr. Fuller has my highest recommendation.

Sincerely, Erin

Erin N. Haynes, DrPH, MS
Kurt W. Deuschle Professor in Preventive Medicine and Environmental Health
Chair, Department of Epidemiology & Department of Preventive Medicine and Environmental Health
Deputy Director, NIEHS Center for Appalachian Research in Environmental Sciences (UK-CARES)
College of Public Health
University of Kentucky
(0) 859-562-2119
@ErinNicHaynes on Twitter

From: Phyllis Farrell <phyllisfarrell681@hotmail.com>

**Sent:** Wednesday, May 19, 2021 3:18 PM

**To:** Yeow, Aaron

**Subject:** CASAC nomination of Jean Mendoza

This is to support the appointment of Jean Mendoza to the above referenced committee. As the Executive Director of the Friends of Toppenish Creek and a retired nurse concerned about public health, Jean has been a tireless advocate for clean air in the Yakima County which has numerous CAFOs and sites of biosolids spreading. She tries to balance the needs of farmers with the individuals and communities impacted by pollutants from CAFOs and biosolids spreading. She is a citizen as well as a science based advocate for clean air, soil health and protecting groundwater from contamination.

Respectfully,

**Phyllis Farrell** 

Sent from Mail for Windows 10

From: Allen, Lucas <lallen@aap.org>
Sent: Wednesday, May 19, 2021 1:07 PM

To: Yeow, Aaron Cc: Laris, Zach

**Subject:** AAP Comment on CASAC List of Candidates

**Attachments:** AAP Letter Pacheco CASAC Final.pdf

Hello Mr. Yeow:

I am writing to share a comment letter from the American Academy of Pediatrics on the List of Candidates for the Environmental Protection Agency's Clean Air Scientific Advisory Committee. Thank you for the opportunity to comment.

Sincerely,

Lucas Allen (he/him) Legislative Assistant, Federal Advocacy American Academy of Pediatrics

From: MARTIN YANEZ <martin.yanez60@yahoo.com>

**Sent:** Tuesday, May 18, 2021 6:36 PM

**To:** Yeow, Aaron

**Cc:** jeanrmendoza@icloud.com

**Subject:** Jean Mendoza

I whole heartedly support her nomination for any responsible position either a state or federal. She is professional and objective. I hope she gets appointed.

Martin Yanez

Project Opioid Director NCEC

From: Sara Cate <Sara.Cate@chcw.org>
Sent: Tuesday, May 18, 2021 10:05 AM

**To:** Yeow, Aaron

**Subject:** Regarding the Nomination of Jean Mendoza to CASAC

#### To whom it may concern,

I have known and worked with Jean Mendoza for the past 5 years. I highly recommend her for this position. As per her bio she has extensive experience working on real world air quality issues in the Yakima Valley researching and informing policy decisions on air and water pollution in this area with high number of CAFO (Concentrated Animal Feeding Operations). I have been very impressed by her careful review of the science and her calm collaborative manner in working on policy solutions. As a Masters level nurse she has a passion for protecting public health particularly for those most vulnerable in our community. I highly admire Jean Mendoza and feel she would be an excellent addition to the Clean Air Scientific Advisory Committee.

Sincerely,

Sara Cate, MD, MPH

From: George Allen <gallen@nescaum.org>
Sent: Tuesday, May 18, 2021 9:51 AM

**To:** Yeow, Aaron

**Subject:** comment on CASAC List of Candidates

Dear Mr. Yeow -- My comments on the list of CASAC candidates posted by the SAB on May 10 is below. Please note that these comments do not necessarily represent the views of my employer NESCAUM or those of NESCAUM member states.

George Allen Chief Scientist, NESCAUM Former member, CASAC (2010-2016)

\_\_\_\_\_

I encourage the EPA administrator to re-appoint Mark Frampton, MD to CASAC, and to consider him for the committee chair. He is the only member of the recently disbanded CASAC that I recommend for re-appointment, and it is important for the chair to have prior CASAC experience. I would also like to highlight the candidacy of Joel Schwartz. Dr. Schwartz's contributions to our understanding of air pollution health effects and development of new analytical methods stand out among all the candidates.

There are many other well-qualified candidates on the list. Below are those I recommend for consideration based on their qualifications and experience that is relevant to CASAC.

John Balmes, MD
Michelle Bell (NASEM)
Jane Clougherty
Deborah Cory-Slechta
Charles Driscoll (NASEM) (eco-systems)
Terry Gordon
Tracey Holloway
Joel Kaufman (NASEM)
Michael Kleinman
Petros Koutrakis
David Peden, MD
Richard Peltier
Mary Rice, MD
Jeremy Sarnat

Jeffrey Underhill (State agency member)

Brett Schichtel (eco-systems)

George Thurston Barbara Turpin

From: Ed Kenney <baldhillssolar@gmail.com>

**Sent:** Monday, May 17, 2021 10:12 PM

To: Yeow, Aaron

**Subject:** Clean Air Scientific Advisory Board

Aaron,

I would like to nominate Washington State's Jean Mendoza to the EPA's Clean Air Scientific Advisory Board.

Jean lives in a county with primarily agricultural industries including large CAFO's that threaten the air, water and soil quality of the residents with contaminants from many sources. Even urban waste is shipped there by the millions of tons.

Jean and I have recently formed a new organization with rural citizens across the state to better understand these sources of pollution and try to lessen their effects on residents. She is knowledgeable, caring and articulate and I think she would make a fine addition to your board.

**Ed Kenney** 

From: Marlene Simla <simlaw39@outlook.com>

**Sent:** Monday, May 17, 2021 1:06 PM

**To:** Yeow, Aaron

**Subject:** Support of Jean Mendoza nomination as scientific advisor.

#### Good Morning,

I am an enrolled Yakama. I have concerns respecting a healthy thriving reservation. I have worked with Jean Mendoza for 20 years on clean water on our Yakama Reservation. I speak for myself and not for the Yakama tribe. Jean began in a nursing career. She trained in the medical field and in university education. This led to much research. Jean narrowed her studies to focus on the lower Yakima Valley. She conducted painstaking research on clean air and clean water. Jean is a true advocate for the best interests of a healthy population. She maintains a finesse at public and private meetings. Jean's dedication is a pure asset to your organization. Thank you for your considerations. Marlene Simla.

Toppenish, WA.

Sent from Mail for Windows 10

From: Vasquez, Karen M <karen.vasquez@austin.utexas.edu>

**Sent:** Saturday, May 15, 2021 10:06 PM

**To:** Yeow, Aaron

**Subject:** Nomination letter for Dr. Sabine Lange for CASAC

**Attachments:** Letter-Sabine Lange-2021.pdf

Dear Mr. Yeow,

Please find my attached letter of nomination/recommendation for Dr. Sabine Lange to serve another term on the USEPA CASAC.

Please let me know if you need anything else.

Sincerely, Karen Vasquez

\*\*\*\*\*\*\*\*\*\*\*\*\*

Karen M. Vasquez, PhD James T. Doluisio Regents Professor Head, Division of Pharmacology and Toxicology

The University of Texas at Austin Dell Pediatric Research Institute 1400 Barbara Jordan Blvd. R1800 Austin, TX 78723

Email: karen.vasquez@austin.utexas.edu

Phone: 512-495-3040 Fax: 512-495-4946

Website: http://www.utexas.edu/labs/vasquez/

From: Tony Reames <treames@umich.edu>

**Sent:** Friday, May 14, 2021 9:06 PM

**To:** Yeow, Aaron

**Subject:** Christina Fuller Nomination to CASAC

Hello Mr. Yeow,

This is a brief comment to support Dr. Christina Fuller's nomination to the EPA CASAC. Dr. Fuller and I are member of the JPB Foundation/Harvard University Environmental Health Fellowship. Her research has been instrumental in identifying environmental injustices associated with transportation related pollution and interventions that can reduce impact. Her voice would be one that centers equity and justice in scientific analysis and ensures clean air is for everyone.

### Tony G. Reames, PhD, PE

Assistant Professor
University of Michigan School for Environment & Sustainability
Urban Energy Justice Lab
<a href="https://www.thegreenscholar.com">www.thegreenscholar.com</a>
<a href="https://www.urbanenergyjusticelab.com">www.urbanenergyjusticelab.com</a>

Voicemail: (734) 647-3916

From: Lara Cushing < lcushing@g.ucla.edu>

**Sent:** Friday, May 14, 2021 1:42 AM

**To:** Yeow, Aaron

**Subject:** CASAC nominee Dr. Christina Fuller

Dear Mr. Yeow,

I'm writing in enthusiastic support of Dr. Christina Fuller's nomination to the EPA Clean Air Scientific Advisory Committee. Dr. Fuller is a highly respected expert in the area of ultrafine particles. She would bring a wide breadth of disciplinary expertise in air pollution to the panel including environmental engineering, exposure assessment, and epidemiology (focusing on cardiovascular health). She has worked extensively with low income communities and communities of color to measure air pollutants and identify exposure reduction technologies and evaluate the efficacy of green infrastructure. She has a keen understanding of environmental justice concerns and has taught in that field for many years. I can think of few scientists who would be better suited to serve in this advisory capacity and wholeheartedly endorse Dr. Fuller's nomination.

Sincerely, Dr. Lara Cushing

\_\_\_\_

Lara Cushing, PhD, MPH (she / her / hers)
Assistant Professor & Jonathan and Karin Fielding Presidential Chair in Health Equity Department of Environmental Health Sciences
UCLA Fielding School of Public Health

Email: | lcushing@ucla.edu

Website: <a href="https://ph.ucla.edu/faculty/cushing">https://ph.ucla.edu/faculty/cushing</a>

From: Claire Richards <clairerichardsrn@gmail.com>

**Sent:** Thursday, May 13, 2021 4:03 PM

**To:** Yeow, Aaron

**Subject:** Re: The Environmental Protection Agency's Clean Air Scientific Advisory Committee

Greetings, I would like to revise the statement I submitted to be more accurate.

#### Dear Mr. Yeow,

I would like to support the nomination of Dr. Jessica Castner to the EPA's Clean Air Scientific Advisory Committee. I am a nurse scientist and I volunteer with Dr. Castner at the Alliance of Nurses for Health Environments. I am aware that Dr. Castner is very well respected among environmental health nurses. Dr. Castner and I testified on a panel together at the OMB in the fall of 2020 to share concerns about the draft of the EPA's Transparency in Science ruling that was under consideration at the time. While I was personally there to oppose the ruling, Dr. Castner was very clear that she was not there to speak for or against the ruling but to provide insight on aspects of clinical data and data storage that the government should be aware of. In preparing together for the meeting, Dr. Castner was also supportive and encouraging of my participation in the panel and demonstrated an interest in diverse perspectives. Furthermore, Dr. Castner provided valuable insights and perspective at the meeting based on her own expertise.

Of paramount importance, nurses make up the largest proportion of the healthcare workforce and are consistently considered the most trusted profession by the public. Nurses are highly skilled at communicating and educating others on health-related topics in a practical and accessible way. Please include Dr. Castner who, as a nurse scientist with extensive environmental health experience, is a valuable voice on the committee.

Thank you for your time, consideration, and attention to this important matter.

Best regards,

Claire Richards, PhD, RN

On Wed, May 12, 2021 at 4:47 PM Claire Richards < <u>clairerichardsrn@gmail.com</u>> wrote:

Dear Mr. Yeow,

I would like to support the nomination of Dr. Jessica Castner to the EPA's Clean Air Scientific Advisory Committee. I am a nurse scientist and I volunteer with Dr. Castner at the Alliance of Nurses for Health Environments. I am aware that Dr. Castner is very well respected among environmental health nurses. Dr. Castner and I testified on a panel together at the OMB in the fall of 2020 to oppose the EPA's Transparency in Science ruling. In preparing together for the meeting, Dr. Castner was also supportive and encouraging of my participation in the panel and demonstrated an interest in diverse perspectives. Furthermore, Dr. Castner provided valuable insights and perspective at the meeting based on her own expertise.

Of paramount importance, nurses make up the largest proportion of the healthcare workforce and are consistently considered the most trusted profession by the public. Nurses are highly skilled at communicating and educating others on health-related topics in a practical and accessible way. Please include Dr. Castner who, as a nurse scientist with extensive environmental health experience, is a valuable voice on the committee.

Thank you for your time, consideration, and attention to this important matter.

Best regards,

Claire Richards, PhD, RN

From: Marie O'Neill <marieo@umich.edu>
Sent: Thursday, May 13, 2021 1:35 PM

**To:** Yeow, Aaron

**Subject:** support for Christina Hemphill Fuller nomination for CASAC

#### Dear colleagues:

I want to express my enthusiastic support for Dr. Fuller's membership on the CASAC.

She is an excellent scholar on air pollution and health, specifically in exposure assessment and epidemiology.

Further, she is an African American woman who has been engaged in community-based research on air pollution

and well versed in research and policy related to disproportionate impacts of air pollution on health in vulnerable

subpopulations.

Best regards,

Marie O'Neill

--

Marie S. O'Neill, PhD, Professor
University of Michigan School of Public Health
Departments of Environmental Health Sciences and Epidemiology
109 Observatory Road, 6623 SPH 1
Ann Arbor, MI 48109
marieo@umich.edu

734 615 5135

Pronouns: she, her, hers

From: Sue Anne Bell <sabell@umich.edu>
Sent: Wednesday, May 12, 2021 9:58 PM

**To:** Yeow, Aaron

**Subject:** In support of Dr. Jessica Caster's recommendation to the CASAC

Hello Mr. Yeow,

I am writing in support of Dr. Jessica Castner's nomination to the EPA's Clean Air Scientific Advisory Committee. Nurses bear first-hand witness to the immediate health effects of poor air quality through their clinical practices in communities and health care settings, and PhD trained nurses like Dr. Castner have extensive research experience. Nurses have been polled as the most trusted health care profession, and represent the largest health workforce in the US. It is important that the expertise of nurse scientists such as Dr. Castner are included in scientific advisory and decision-making processes. She has the clinical, technical and research experience to make a significant contribution to the council.

I speak from my own experience—I am a nurse and a scientist, as well a member of the Federal Emergency Management Agency's National Advisory Council.

Best,

Sue Anne Bell

Sue Anne Bell, PhD, FNP-BC, FAAN
University of Michigan School of Nursing
sabell@umich.edu
@sueannebell

From: Teddie Potter PhD <tmpotter@umn.edu>
Sent: Wednesday, May 12, 2021 4:24 PM

**To:** Yeow, Aaron

**Subject:** Comment in support of Dr. Jessica Castner

Dear Mr. Yeow,

My name is Teddie Potter and I am Chair of the Environment and Public Health Expert Panel for the American Academy of Nursing. I am writing to convey my full support for Dr. Jessica Castner being appointed to the Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC).

Dr. Castner is renowned for her expertise in Emergency Nursing. As a Board Certified Asthma Educator and Editor-in-Chief of the Journal of Emergency Nursing, she knows the direct impact that poor air quality has on patients and families. She will represent a very important constituency the work conducted by CASAC.

Thank you for your consideration of this excellent candidate.

Sincerely, Teddie Potter PhD, RN, FAAN, FNAP

--

Teddie M. Potter, PhD, RN, FAAN, FNAP
Clinical Professor/Coordinator <u>Doctor of Nursing Practice in Health Innovation and Leadership/</u>
Director of Planetary Health
Executive Editor, <u>Interdisciplinary Journal of Partnership Studies</u>
School of Nursing University of Minnesota
308 Harvard St. SE 6-189B Weaver Densford Hall Minneapolis, MN 55455
tmpotter@umn.edu/ 612 626-2881

Pronouns: She/Her



From: nancy <nancy@nmbglobal.com>
Sent: Wednesday, May 12, 2021 3:26 PM

**To:** Yeow, Aaron

**Subject:** Support for the nomination of Jessica Castner, PhD, RN to the Environmental Protection Agency's

Clean Air Scientific Advisory Committee

#### To whom it may concern,

I have had the privilege of collaborating with Dr. Castner in her role as the Editor-In-Chief of the *Journal of Emergency Nursing*. As a long-term section editor of the Journal, I witnessed the transformation this publication underwent when Dr. began her tenure. She strengthened the Journal's scientific rigor, international scope and impact ratings. Her interest and concern for environmental issues is evident in the research she has participated in, and as an nurse, will bring a very human perspective to issues facing the Environmental Protection Agency. She is collegial, professional and an asset to any program or committee she participates in. I highly recommend Dr. Caster for this appointment.

Nancy Mannion DNP, RN, CEN, FAEN President, NMB Global Leadership, LLC 717-413-8363 nancy@nmbglobal.com

From: Baccarelli, Andrea <ab4303@cumc.columbia.edu>

**Sent:** Wednesday, May 12, 2021 11:13 AM

**To:** Yeow, Aaron

**Subject:** Comment on the List of Candidates For the Environmental Protection Agency's Clean Air Scientific

**Advisory Committee** 

I would like to provide my comment on the nomination of Dr. Christina Fuller in the Environmental Protection Agency's Clean Air Scientific Advisory Committee.

I strongly endorse her nomination. She is a first-tier, Harvard trained investigator who has done substantial high impact work on the effects of air pollution.

She also brings diversity as part of an ethnic/racial group minoritized in science and environmental health. Dr. Fuller has a strong record of advisory roles for multiple regulatory bodies.

As a Chair of a department of Environmental Health Sciences and an environmental health scientist, I see no better fit for this role.

Very best wishes,

Andrea Baccarelli, M.D. Ph.D. | Leon Hess Professor and Chair (He-Him)

Department of Environmental Health Sciences | Columbia University Mailman School of Public Health
722 West 168th Street, Room 1105E | New York, NY 10032
t: 212-305-3959 | f: 212-305-3875
andrea.baccarelli@columbia.edu



My tweets: @BaccarelliAA My lab tweets: @BaccarelliLab

For administrative issues, please contact Fernando Luque (212-305-5312, fll2112@cumc.columbia.edu)

From: Jim Zhang <junfeng.zhang@duke.edu>
Sent: Wednesday, May 12, 2021 10:47 AM

**To:** Yeow, Aaron

**Subject:** Supporting Christina Fuller's nomination for CASAC

Dear Aaron,

Greetings. I hope you have been doing well and stayed healthy during the pandemic. I often recall my time when serving on the NOx review panel, especially when co-teaching a course on Air Quality Management at Duke with John Vandenberg over the last several years. I found my CASAC review experience very helpful to teaching the course.

In any case, the main purpose of this note is to support Dr. Christina Fuller's nomination for a CASAC membership. I have known Christina since her doctoral study days and have interacted with her mainly at ISES conferences. I have served as a professional reference for her faculty jobs/promotions. Through these interactions, I am fully aware of Dr. Fuller's passion about better air quality. I believe that her perspectives from community interests in improved air quality will be very valuable to CASAC. She works and lives in Atlanta, GA, one of the areas that have the highest air pollution levels in the US, which allows her to have the first-hand experience with poor air quality. Being a member of the Black community, Dr. Fuller will contribute to the racial/ethnicity diversity and inclusiveness of the CASAC. For all these reasons, I strongly support Dr. Fuller's nomination.

All my best wishes,

Jim

-----

Junfeng (Jim) Zhang, PhD (he/him/his)
Professor of Global and Environmental Health
Director of Exposure Biology and Chemistry Laboratory
Duke University Nicholas School of the Environment, &
Duke Global Health Institute
Visiting Professor at Duke Kunshan University
LSRC Room A309
308 Research Drive
Durham, NC 27708-0328

Phone: 919-681-7782

Faculty profile: <a href="https://nicholas.duke.edu/people/faculty/zhang">https://nicholas.duke.edu/people/faculty/zhang</a> Laboratory site: <a href="http://sites.globalhealth.duke.edu/ebclab">http://sites.globalhealth.duke.edu/ebclab</a>

From: Chew, Ginger L. (CDC/DDNID/NCEH/DEHSP) <gjc0@cdc.gov>

**Sent:** Wednesday, May 12, 2021 10:16 AM

**To:** Yeow, Aaron

Subject: Clean Air Scientific Advisory Committee (CASAC) nominee (Christina Fuller)

Hello Mr. Aaron Yeow,

I saw the list of nominees for the Clean Air Scientific Advisory Committee (CASAC)on this web page: <a href="https://yosemite.epa.gov/sab/sabproduct.nsf/RSSRecentHappeningsCASAC/ECFB759C17B8624E852586A1005E1962/\$File/CASAC%20FY22%20LOC-web.pdf">https://yosemite.epa.gov/sab/sabproduct.nsf/RSSRecentHappeningsCASAC/ECFB759C17B8624E852586A1005E1962/\$File/CASAC%20FY22%20LOC-web.pdf</a>

I would like to support Dr. Christina Fuller for membership on the CASAC. I have known her since she moved to Atlanta to teach at Georgia State University (a predominately commuter student body with a high prevalence of low-income urban students). She invited me to guest lecture for her course on air pollution. Her students were engaged and appreciative of my lecture; I attribute that to her teaching style and mentoring skills. I think that she would bring a perspective to the CASAC that is not available from other nominees. I know many of the other nominees and while some of them have analyzed inner-city issues related to air pollution, they do not have the hands-on exposure that Dr. Fuller has by teaching the students that live in these communities.

Thank you for this consideration.

Sincerely, Ginger

Ginger L. Chew, ScD
Deputy ADS for Division of Environmental Health Science & Practice (DEHSP)
Centers for Disease Control and Prevention (CDC)
National Center for Environmental Health (NCEH)
4770 Buford Hwy., N.E., MS S106-5
Atlanta, GA 30341
GJC0@cdc.gov

From: costadl40@gmail.com

**Sent:** Wednesday, May 12, 2021 9:50 AM

**To:** Yeow, Aaron

**Subject:** Support for Dr. Terry Gordon

#### Hi Aaron:

Hope all is well with you. I don't envy the task in front of you with all that needs to be done with reconstituting CASAC. I know many of the folks but I wanted to ut in my support for Dr. Terry Gordon. I think he would be a great choice because he brings a host of professional and personal attributes. I've known him for more than 40 years back to grad school when I was leaving Harvard and he was entering MIT. We both had Dr. Mary Amdur as our advisor. He's a toxicologist and brings a wealth of experience and empirical perspective to air pollution issues that sometimes get washed in statistical and epidemiological assessments. He and I wrote the Air Pollution chapter in the classic Casarett and Doull (several revisions for the volumes since the 1980s). He's chaired many panels and has been the chair of the TLV committee for ACGIH for many years. He knows the science (asoc editor of several journals including EHP) and the people, but perhaps what he brings best is an inherent skepticism to most things...not disagreeable but rather demanding validation and substantiation. He's not a pushover in his defense of what is best be in on one side or the other. He sets the bar high and is a no BS person. IN my view, thee contentious times demands fair minded people. I throw my support to him.

Take care,
Dan Costa
retired EPA and Adjunct Prof at UNC-CH

From: Colleen Reid <Colleen.Reid@Colorado.EDU>

**Sent:** Tuesday, May 11, 2021 4:25 PM

**To:** Yeow, Aaron

**Subject:** CASAC nomination of Christina Fuller

Dear Dr. Yeow,

I am writing to support the nomination of Dr. Christina Fuller for membership on the Clean Air Scientific Advisory Committee (CASAC) of the USEPA. Dr. Fuller is a mid-career scholar with expertise in exposure assessment and epidemiological analyses of the health impacts of air pollution. In addition to her expertise that is already outlined in her nomination, I would like to emphasize the work that Dr. Fuller does at the intersection of air pollution and environmental justice. This is exactly the kind of expertise we need on the CASAC as there is growing evidence of disproportionate impacts of air pollution on communities of color and low-income communities in the COVID-19 pandemic. Now more than ever, it is essential that the US EPA have a diverse CASAC with sufficient expertise on air pollution health impacts and how air pollution disproportionately impacts already disadvantaged communities. Dr. Fuller will help achieve this.

Sincerely,
Colleen E. Reid, PhD MPH (she/her/hers)
Assistant Professor of Geography
University of Colorado Boulder
E: Colleen.Reid@colorado.edu

Traditional Territories of the Arapaho, Cheyenne and Ute Nations

From: McClean, Michael <mmcclean@bu.edu>

**Sent:** Tuesday, May 11, 2021 4:02 PM

**To:** Yeow, Aaron

**Subject:** EPA Clean Air Scientific Advisory Committee - comment

Dear Mr. Yeow

I writing to offer my strong endorsement of Professor Greg Wellenius as a candidate to serve on the EPA's Clean Air Scientific Advisory Committee (CASAC).

Professor Wellenius was recruited to the Boston University School of Public Health to develop and lead our new Climate and Health Program. As a candidate to serve on the CASAC, he has outstanding credentials, ideal expertise, and is an exceptionally productive researcher in this space. I appreciate that the same could be said of many candidates on your list - given our relatively small world of environmental epidemiology, I know and respect many of them.

However, the reason I would choose Professor Wellenius over the others is that he is an active listener who is exceptionally thoughtful in collaborative settings. He is not simply waiting for an opportunity to take over a conversation, as can often be the case in a room full of world renowned experts. Professor Welleius listens carefully, processes information and ideas shared by others, and contributes his valuable insights in ways that are respectful and constructive and directly advance the collective effort. There are lots of smart people but they are not all well suited to contribute as a member of group in this context. Professor Wellenius is exactly the sort of smart person who is.

I hope the CASAC has the opportunity to benefit from Professor Wellenius' contributions. Thank you for your consideration.

Best, Mike

Michael D. McClean, ScD Associate Dean for Research and Faculty Advancement Professor of Environmental Health Boston University School of Public Health 715 Albany Street, Talbot 303 Boston, MA 02118 Tel: 617-358-1910

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From: Jennifer D. Roberts < jenrob@umd.edu>

**Sent:** Tuesday, May 11, 2021 2:50 PM

**To:** Yeow, Aaron

**Subject:** Dr. Christina H. Fuller's membership to the Clean Air Scientific Advisory Committee (CASAC) of the

**USEPA** 

Hello Mr. Yeow,

Please accept my supporting statement for Dr. Christina H. Fuller's membership to the Clean Air Scientific Advisory Committee (CASAC) of the USEPA.

Dr. Christina H. Fuller is an Associate Professor of Environmental Health at the Georgia State University School of Public Health. Dr. Fuller received her M.S. degree and Sc.D. degree in Environmental Health from the Harvard School of Public Health and her B.S. degree in Environmental Engineering from Northwestern University. Dr. Fuller has been active in the air pollution field for over 15 years and specializes in human exposure assessment, epidemiology, health disparities and community-based research. Her expertise includes the characterization of criteria air pollutants, as well as extensive knowledge of ultrafine particles; estimating cardiovascular health effects; documenting disparities and social vulnerabilities; and testing exposure reduction technologies.

Dr. Fuller has served on review panels for the National Institute of Environmental Health Sciences (NIEHS), the Health Effects Institute and the Natural Environment Research Council (United Kingdom). She is an Editorial Board Member of the International Journal of Environmental Research and Public Health (IJERPH), and is currently editing a special issue on air pollution within Africa and the African Diaspora. Dr. Fuller recently released a co-edited book titled Ambient Combustion Related Ultrafine Particles and Health, which compiles the state of the science of the very smallest particles. Within the past two years, Dr. Fuller has served as PI of an NIEHS-funded research grant testing the effectiveness of air pollution mitigation through green infrastructure. In addition, she served as PI on a community-engaged research project measuring air pollution near marine ports funded by New York Community Trust/Friends of the Earth. She teaches courses on air pollution, environmental justice and environmental health to both undergraduate and graduate students. Dr. Fuller is a member of the International Society of Environmental Epidemiologists (ISEE) and its Capacity Building and Education Subcommittee; the International Society of Exposure Science (ISES) and its 2021 Technical Organizing Committee: and the American Public Health Association.

Inclusivity is necessary to ensure sound advice to USEPA regarding current and future air quality issues. In addition to the traditional technical expertise for this committee I believe there should be representation from those historically absent from such bodies, in particular people of color and women. And Dr. Fuller fulfills all of this and more.

### Thank you,

### Jennifer Roberts

Jennifer D. Roberts, DrPH, MPH

Assistant Professor | Physical Cultural Studies Research Group

Director | Public Health Outcomes and Effects of the Built Environment Laboratory

Co-Director | NatureRx@UMD

Department of Kinesiology | School of Public Health | University of Maryland SPH Building #255 | 4200 Valley Drive | College Park | Maryland | 20742-2611

Office: SPH 2136 | PHOEBE Lab: SPH 1304A

Phone: 301.405.7748 | Fax: 301.405.5578 | Email: jenrob@umd.edu

Professional Website: <u>www.jenniferdeniseroberts.com</u>

UMD Profile Website: <a href="https://www.sph.umd.edu/people/jennifer-d-roberts">www.sph.umd.edu/people/jennifer-d-roberts</a>

PHOEBE Lab Website: <a href="www.sph.umd.edu/phoebelab">www.sph.umd.edu/phoebelab</a> NatureRx@UMD Website: <a href="go.umd.edu/naturerx">go.umd.edu/naturerx</a>

PCS Website: <a href="https://www.umdpcs.org">www.umdpcs.org</a>
Twitter Page: <a href="mailto:@ActiveRoberts">@ActiveRoberts</a>

Preferred Pronouns: She · Her · Hers

https://www.mypronouns.org/what-and-why

From: Thimke, Mark A. <MThimke@foley.com>

**Sent:** Tuesday, May 11, 2021 2:27 PM

**To:** Yeow, Aaron

Cc: TRACEY HOLLOWAY

**Subject:** Support for Tracey Holloway for CASAC

Mr. Yeow,

I am writing to support Tracey Holloway's nomination to the Clean Air Scientific Advisory Committee (CASAC). Tracey's knowledge and familiarity with air pollution issues, including use of NASA mapping techniques and PFAS atmospheric deposition, would be a great addition to the Committee. I am a practicing environmental lawyer and a regular attendee and contributor to the Wisconsin Air Management Study Group, of which Tracey is a member. Tracey's technical presentations at the AMSG are readily understood and demonstrate to me that she possesses great depth and experience in air related issues. I highly recommend her and know she will be a great asset to the Committee.

#### Mark Thimke

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From: Dickinson, Katherine <KATHERINE.DICKINSON@CUANSCHUTZ.EDU>

**Sent:** Tuesday, May 11, 2021 2:02 PM

**To:** Yeow, Aaron

**Subject:** Support for Dr. Christina Fuller's nomination to the CASAC

Dear Mr. Yeow,

I am writing in support of Dr. Christina Fuller's nomination to serve as a member of EPA's Clean Air Scientific Advisory Committee (CASAC). Dr. Fuller is a distinguished scholar in the field of environmental health. Her research focuses on air pollution, human exposure assessment, epidemiology, health disparities, and community-engaged research. She is an effective science communicator and has worked to examine community-engaged solutions to lower air pollution exposures in disproportionately impacted communities. In addition to her stellar technical expertise, Dr. Fuller's experience and perspective as a Black women would make her an excellent and much-needed addition to this committee.

I am happy to answer any further questions.

Best,

Dr. Katherine Dickinson Assistant Professor of Environmental and Occupational Health Colorado School of Public Health

From: Spengler, John D. <spengler@hsph.harvard.edu>

**Sent:** Tuesday, May 11, 2021 12:57 PM

**To:** Yeow, Aaron

**Subject:** RE: Christiania Fuller

Mr. Aaron Yeow Designated Federal Officer CSAC

As Dr. Fuller's doctoral advisor, I am, of course, enthusiastically supportive of her nomination for considerations to serve on EPA's CSAC. Beyond the obvious interest in the career of our graduates I have observed continued growth in Christina, both professionally and personally, as an promising researcher, communicator and teacher.

Christiana has become multifaceted Extending her formal trained in exposure sciences, biostatistics and epidemiology, Christina can be considered among a few environmental health scientist operating at the nexus of physical and social determinants of health. Christina has not shied away from stepping 'off campus' to offer her environmental health expertise to community organizations in Atlanta.

Not only will the CSAC appointment be good for Dr. Fuller, she will add her voice and expertise to critical scientific and social environmental issues of eco-justice and inclusion.

#### Best Jack Spengler

John D Spengler, Akira Yamaguchi Professor of
Environmental Health and Human Habitation
Harvard T.H. Chan School of Public Health
Director of the JPB Environmental Health Fellowship Program
Spengler@HSPH.Harvard.edu Jack Spengler@Harvard.edu

From: Bradford, Mary Kay (14924) <MKBradford@michaelbest.com>

**Sent:** Tuesday, May 11, 2021 11:45 AM

**To:** Yeow, Aaron

Cc: Palmer, Todd E (24432)

**Subject:** Tracey Holloway – Support for Nomination for the Clean Air Scientific Advisory Committee

Attachments: Ltr to US EPA re Tracey Holloway Nomination - 30493452.1.pdf

#### Good morning,

Todd Palmer asked me to send you the attached letter in support of the nomination of Dr. Tracey Holloway to the CASAC.

Thank you.

Mary Kay

#### **Mary Kay Bradford**

**Lead Legal Assistant** 

E mkbradford@michaelbest.com

T 414.225.4924 | F 414.277.0656 | michaelbest.com



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From: Savitz, David <david\_savitz@brown.edu>

**Sent:** Tuesday, May 11, 2021 9:37 AM

**To:** Yeow, Aaron

**Subject:** Support for Gregory Wellenius's candidacy for membership on CASAC

#### Dear Mr. Yeow:

I am writing to express my enthusiastic support for Greg Wellenius's candidacy as a member of CASAC. He is a distinguished scientist as are most of the nominees, but he has an unusual breadth and depth of knowledge of epidemiology, statistics, environmental sciences, and risk assessment. Moreover, he is a thoughtful, even-handed appraiser of evidence which seems critical for the activities of CASAC. So many researchers join one camp or another with preconceived ideas whereas Greg is a skilled and objective judge of the science. If he joined, I am also certain that he would be a conscientious, responsive member and an excellent collaborator with other members. David Savitz

--

David A. Savitz, PhD
Professor and Chair of Epidemiology
Professor of Obstetrics & Gynecology and Pediatrics
Brown University
121 South Main Street, Box G-S121
Providence, RI 02912
(401) 863-6090 (office)
(401) 863-3713 (fax)

E-mail: david savitz@brown.edu

From: Kinney, Patrick < pkinney@bu.edu>
Sent: Tuesday, May 11, 2021 9:31 AM

**To:** Yeow, Aaron

**Subject:** CASAC candidate endorsements

#### Dear Aaron:

I have reviewed the list of candidates for CASAC, and offer the following recommendations:

The list of potential candidates provides an opportunity to pass the baton on to a younger, more diverse set of environmental science and management experts. The following scientists are rising or established stars in the fields of epidemiology, toxicology, climate, atmospheric chemistry, and/or toxicology, and I would highly recommend each of them:

Sarah Adar
Susan Anenberg
Jane Clougherty
Deborah Cory-Slechta
Daven Henze
Tracey Holloway
Ilona Jaspers
Alison Lee
Faye McNeill
Mary Rice
Noelle Selin
Gregory Wellenius

Patrick L. Kinney, Sc.D.
Beverly A. Brown Professor of Urban Health and Sustainability
Department of Environmental Health
Boston University School of Public Health
715 Albany Street
Talbot 4W, Room 443
Boston, MA 02118

Office: 617 358 2469
Fax: 617-358-2642
Email: <a href="mailto:pkinney@bu.edu">pkinney@bu.edu</a>
Twitter: <a href="mailto:@PatrickKinney20">@PatrickKinney20</a>





May 11, 2021

VIA EMAIL TO: <a href="mailto:veow.aaron@epa.gov">veow.aaron@epa.gov</a>

Mr. Aaron Yeow Designated Federal Officer United States Environmental Protection Agency

Re: <u>Tracey Holloway – Support for Nomination for the Clean Air Scientific Advisory Committee</u>

Dear Mr. Yeow:

I am submitting this letter in support of the nomination of Dr. Tracey Holloway to the FY 2022 Clean Air Scientific Advisory Committee (CASAC). I have known Dr. Holloway for approximately eight years. I have served with her as a member of the Wisconsin Department of Natural Resources Air Management Study Group (AMSG), advising State of Wisconsin regulators on Clean Air Act regulatory policy, regulations and implementation of programs designed to improve air quality within the State. Dr. Holloway has proven herself to be a valuable member of the AMSG, providing valuable insight, perspective and expertise on the science and public health aspects of Clean Air Act regulation.

I am a lawyer in private practice. I previously retained Dr. Holloway as an expert to assist me in providing legal representation for a diverse group of clients in the renewable energy sector. In that role, she demonstrated her expertise on Clean Air Act policy and science.

I have also been a guest lecturer in courses taught by Dr. Holloway at the University of Wisconsin – Madison. As a professor, she is well regarded by faculty, staff and students as an excellent researcher and educator. She goes out of her way to serve in a mentorship role for students, taking particular interest in encouraging young women to pursue careers in the science field.

Dr. Holloway has led a National Aeronautics and Space Administration Health and Air Quality Applied Sciences Team exploring ways to use satellite data to better understand ambient air pollution, its transport and potential impacts on human health. Her work is on the cutting-edge intersection of science, air quality and public health research.

I believe CASAC would greatly benefit from Dr. Holloway's perspective and expertise. She is well qualified to advise EPA of areas in which additional knowledge is required to appraise the adequacy and basis of existing, new and revised NAAQS. I have direct experience with Dr. Holloway identifying areas of additional research efforts that may be necessary for assessing air quality impacts of various sectors of the economy, including my clients. She is well versed in assessing the relative contribution to air pollution concentrations of natural as well as anthropogenic activities in society. I am confident that she could advise the EPA on potential adverse public health, welfare, social, economic and energy effects which could result from various strategies for attaining and maintaining compliance with NAAQS.



Mr. Aaron Yeow May 11, 2021 Page 2

Aside from her legion scientific qualifications, Dr. Holloway is an outstanding member of the scientific community, enthusiastically working to improve society's understanding of air pollution, its affects on public health and creative ways to achieve compliance with NAAQS. She is also tireless mentor of younger students and scientists.

For the above reasons, I enthusiastically and without hesitation recommend Dr. Holloway for nomination as a candidate to the CASAC. Please do not hesitate to contact me if you have any questions or if I can talk further about Dr. Holloway.

Sincerely,

**MICHAEL BEST & FRIEDRICH LLP** 

Todd E. Palmer

TEP:mkb



Karen M. Vasquez, Ph.D., James T. Doluisio Regents Professor Head, Division of Pharmacology and Toxicology Dell Pediatric Research Institute 1400 Barbara Jordan Blvd R1800 • Austin, Texas 78723 (512) 495-3040 • FAX (512) 495-4946 • Email: karen.vasquez@austin.utexas.edu

May 15, 2021

Dear Mr. Yeow,

It is my pleasure to endorse the nomination of Dr. Sabine Lange, Section Manager of the Toxicology Division for the Texas Commission on Environmental Quality (TCEQ), to serve on the USEPA Clean Air Scientific Advisory Committee (CASAC).

I have known Dr. Lange for more than 14 years and have observed first hand her excellent scientific capabilities. Since joining the TCEQ, she has been involved in applying her risk assessment and toxicology expertise to air pollution regulatory activities at the State and Federal level. She has also researched and been an author on papers addressing the National Ambient Air Quality Standards pollutants. Dr. Lange has direct and relevant experience in understanding the importance of these standards at the State level, which is an important perspective to bring to the CASAC.

Dr. Lange has already served one term on the USEPA CASAC, and I believe that with her experience in this role and her expertise, she would be an excellent addition to the CASAC, and would bring substantive scientific and regulatory perspectives and judgement to the USEPA.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Karen Vasquez, PhD

James T. Doluisio Regents Professor

Division Head

Karen Vasguz

Division of Pharmacology and Toxicology

The University of Texas at Austin

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#### Reply to AAP Washington Office

601 13th St NW, Suite 400N Washington, DC 20005 Phone: 202/347-8600 E-mail: kids1st@aap.org

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May 19, 2021

Administrator Michael S. Regan U.S. Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, DC 20460

RE: Nomination to the EPA's Clean Air Scientific Advisory Committee

#### Dear Administrator Regan:

On behalf of the American Academy of Pediatrics (AAP), a non-profit professional organization of 67,000 primary care pediatricians, pediatric medical sub-specialists, and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents, and young adults, I am writing to nominate Susan Pacheco, MD, FAAP, as a member of the Environmental Protection Agency (EPA) Clean Air Scientific Advisory Committee (CASAC).

Dr. Pacheco is an associate professor of pediatrics at the University of Texas McGovern Medical School. She is an expert in the health effects of air pollution on the pediatric population, and certified by the American Board of Allergy and Immunology. Since 2014, Dr. Pacheco has served on the AAP Council on Environmental Health Executive Committee, providing the Academy with expertise on ozone and particulate matter as well as the adverse public health effects of these and other air pollutants, and the important environmental justice considerations for policy to address them. The AAP offers her nomination to provide critical expertise for the child health considerations of the CASAC.

Thank you again for your consideration of Dr. Pacheco's nomination. AAP believes that her scientific expertise, diversity of experience, and pediatric perspective would be of great value to the work of the CASAC. The AAP commends EPA for its efforts to ensure a scientific advisory process that is science-based, open, transparent, impartial, and reflective of diverse perspectives and stakeholder populations. If the AAP can be of any further assistance, please do not hesitate to contact Zach Laris in our Washington, D.C. office at 202/347-8600 or <a href="mailto:zlaris@aap.org">zlaris@aap.org</a>.

Sincerely,

Lee Savio Beers, MD, FAAP

President LSB/zml



#### School of Geographical Sciences & Urban Planning

Arizona State University Tempe AZ 85287-5302 http://geoplan.asu.edu/ Randall S. Cerveny

email: cerveny@asu.edu telephone: 480-965-7533 fax: 480-965-8313

5/21/2021

To: Mr. Aaron Yeow, Designated Federal Officer

I have been asked to write a letter of recommendation in support of one of my former top graduate students, **Dr. Matt Pace**, for the **EPA Clean Air Scientific Advisory Committee** (**CASAC**). It is my extreme and delightful pleasure—and honor— to be able to do so. Without question, Dr. Matt Pace has become one of my very best graduate students in my 34 years of teaching, which now includes mentoring over 30 Ph.D. graduates and 40 Masters students, some of whom are now Distinguished Professors and senior members of NOAA research facilities. I give him **my highest possible recommendation**, something I have only done three times over the past 34 years. Why?

First, Matt Pace is incredibly smart. He simply excelled in all the courses that he took from me and wrote a landmark dissertation on the use of isentropic map analysis on forecasting tornadoes published in the flagship journal of Geography, the Annals of the American Association of Geographers. More importantly, his recent ground-breaking work with me after graduation on evaluating the highest temperature ever recorded on the Earth for the World Meteorological Organization (part of the United Nations) has become one of the highest cited research articles in the profession (El Fadli et al. 1913 in the Bulletin of the American Meteorological Society).

Second, he is one of the most effective communicators who I have ever seen. His work as a broadcast meteorologist for NBC12 in Phoenix was, simply, top-notch. His ability to take a complex subject like meteorological forecasting and make it understandable to the general public is simply, in my opinion, unmatched. He has continued using those communication skills in effectively promoting fire/smoke management and ozone pollution management for the State of Arizona at his current position within the Arizona Department of Environmental Quality,

Third, Matt Pace is a workaholic. Since finishing his graduate research, his work as a lead meteorologist—with specific application for smoke management—for the Arizona Department of Environmental Quality has undoubtedly saved vast amounts of valuable property. And it probably even saved lives within the state of Arizona. In recent years, wildfires—and consequently wildfire management—have been critical in the western states. It is most satisfying to see a scientist of Dr. Matt Pace's incredible quality heading up such important work for the state of Arizona!

But, fourth and most importantly (to me), Matt Pace's research continues to be at the very vanguard of science! He and I (and a team of other meteorologists) are currently developing a complex ranking system (similar to the tornado "fujita scale" or the hurricane "saffir-simpson".

scale") for categorizing dust storm events within Arizona. Obviously, upon completion, such innovative and landmark research, that directly involves air quality, will have great ramifications for the Environmental Protection Agency.

In summary, as one of my past graduate students, Dr. Matt Pace was quite simply a superb investigator. Since his graduation, that investigator has become a disciplined scholar and valued researcher. I am honored to have the opportunity to recommend him. As I mentioned above, I would rank Dr. Matt Pace as one of my **very best** graduate students in my 34 years of teaching. Without hesitation, <u>Dr. Matt Pace receives my highest recommendation</u> for a seat on the **EPA Clean Air Scientific Advisory Committee** (**CASAC**). Quite simply, this is a nobrainer – he's the best and the quality of his research is quite simply top-notch!

Please feel free to contact me if you have any questions regarding this recommendation.

Randall S. Cerveny

President's Professor of Geographical Sciences, Arizona State University World Meteorological Organization/United Nations' Rapporteur of Extreme Weather



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WFBSITF:

www.CitizenCoalitionWE.com

**EMAIL:** 

CCWEinfo@amail.com

May 26, 2021

MEMORANDUM FOR Dr. Jessica Castner, PhD, RN-BC, FAEN, FAAN, Castner Incorporated, <a href="mailto:icastner@castnerincorp.com">icastner@castnerincorp.com</a>

SUBJECT: Letter of Support for CASAC Nomination

I am writing in support of Dr. Castner's nomination for the Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC). Given that CASAC is responsible for scientific advising to the EPA administrator on regulatory science related to the Clean Air Act I would assert that Dr. Castner is an ideal candidate to serve on the committee. As an emergency nurse and nurse scientist, Dr. Castner's career has enabled first-hand witness to the immediate health effects of poor air quality and in-depth understanding of the human health response to these hazards. This speaks directly to the task of population emergency department visits, one of the major outcomes measured in the epidemiology that informs the Clean Air Act standard setting process.

On the basis of her scientific and technical expertise, her credibility and impartiality, and her ability to work collaboratively with committee members, it is my opinion that Dr. Castner would be a strong contributor to the CASAC committee.

I am the Vice President of Citizen Coalition for Wildlife and Environment, an organization that advocates and educates for environmental justice. I am also Chair of Political Science and Director of International Studies at Niagara University. Through my work with both organizations I can speak to the importance of Dr. Castner's research and scientific contributions and would argue that her work is essential for public health and safety. I am confident in Dr. Castner's ability to conduct this work and to contribute to the assessment of the Clean Air Act standards, as she has provided our organization with research, research methods, and evidence-based resources to inform our environmental health advocacy in the past.

Sincerely,



Dave Reilly, Ph.D.



#### Richard D. Wood, Ph.D., F.R.S.

J Ralph Meadows Chair in Carcinogenesis Research rwood@mdanderson.org T 512-237-9431

**Department of Epigenetics & Molec. Carcinogenesis** Virginia Harris Cockrell Cancer Research Center 1808 Park Road 1C - P.O. Box 389 Smithville, TX 78957, USA

Aaron Yeow Designated Federal Officer, Clean Air Scientific Advisory Committee

May 26, 2021

Dear Mr Yeow:

I write to comment on and highly endorse the nomination of Sabine Lange, Ph.D., DABT for service on the EPA's Clean Air Scientific Advisory Committee. Because the CASAC provides independent advice, information and recommendations to the EPA Administrator on the scientific and technical aspects of air quality criteria, it is important to have the most relevant experts on the committee. Dr. Lange is Section Manager for the Toxicology, Risk Assessment, and Research Division at the Texas Commission on Environmental Quality in Austin. She has extensive relevant experience in the area including overseeing health effects risk assessments of air permit applications, ambient air monitoring projects, and hazardous waste sites. Her documented research interests include the toxicology of criteria air pollutants, particularly ozone dosimetry and exposure-response. She has professionally reviewed the documents released by the US EPA on the National Ambient Air Quality Standards (NAAQS) for ozone, particulate matter, sulfur dioxide, nitrogen dioxide, and lead, and has provided comments to the EPA on the documents supporting these standards.

I know Dr. Lange well, as we worked together productively for six years on scientific research at MD Anderson. As a scientist at MD Anderson, Dr. Lange oversaw several high-level projects. A major project demonstrating her related experience was her leadership of a study to examine the toxicological consequences of a DNA polymerase (pol zeta) deletion in a genetically engineered mouse model. She specifically deleted Rev3L in mouse epithelium by driving Cre from the keratin 5 promoter. She then carried out toxicological studies to determine the phenotype, quantifying their sensitivity to UV radiation. She designed carcinogenesis studies and found that the mice develop tumors in specialized sebaceous glands. She also found in comparative studies that these mice are more sensitive to ultraviolet radiation than any other DNA repair mouse model. Sabine designed and implemented molecular toxicological investigations, determining that pol zeta defective mouse cells have a major increase in DNA breaks and chromosomal aberrations, including micronuclei in epidermal keratinocytes. She further found, an inability of the cells to proliferate after exposure to DNA damaging agents, because of checkpoint signaling from DNA breaks. This was exacerbated by UV radiation. She designed the studies, quantified them, and performed rigorous statistical analysis. Her manuscripts describing this work are Proc Natl Acad Sci. 2013 and Nucleic Acids Res 2012). Dr. Lange designed and managed this research and supervised the technical staff who assisted in the quantification of the studies. She further discovered that keratinocyte proliferation defect in these mice is a result of an environmental stress response (2018, Life Science Alliance). All this work was quantitative and rigorous, using double-blind study design. She wrote a major review which has had a high citation impact (2011 Nat Rev Cancer).

Dr. Lange has served on CASAC previously would be a knowledgeable, focused, highly energetic and articulate expert committee member.

Yours sincerely,

Richard D. Wood, Ph.D.

Rile D. Wood



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Peggy M. Shepard 465 West 140<sup>th</sup> Street New York, NY 10031 (917) 482-1434 peggy@weact.org

24th May 2021

Mr. Aaron Yeow

Designated Federal Officer (DFO), Clean Air Scientific Advisory Committee

U.S. Environmental Protection Agency Headquarters

William Jefferson Clinton Building 1200 Pennsylvania Avenue, N.W.

Mail Code: 1400R Washington, DC 20460

Via Email: yeow.aaron@epa.gov Re: Invitation for Public Comment on the List of Candidates For

EPA's Clean Air Scientific Advisory Committee (CASAC)

Dear Mr. Yeow:

I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC). CASAC plays an important role under the Clean Air Act in providing expert advice to EPA that includes reviewing EPA's air quality criteria and national ambient air quality standards developed under Clean Air Act (CAA) sections 108 and 109, as well as providing EPA with other related scientific and technical advice.

On May 10, 2021, EPA's Science Advisory Board (SAB) issued a "Invitation for Public Comment on the List of Candidates for the CASAC." CASAC is a seven-member Federal Advisory Committee (FAC) tasked with providing EPA independent scientific advice related to the national ambient air quality standards (NAAQS).

I have been director of WE ACT For Environmental Justice for the past 32 years, I have worked to ensure that frontline communities are not subject to poor air quality. I have been active in working with EPA Region 2 on the fine particulate standard and on increasing air monitoring in environmental justice communities that are not in attainment of clean air standards. As the co-chair of the White House Environmental Justice Advisory Council, and the former chair of EPA's NEJAC, I am concerned that the CASAC has diverse expertise and has members whose focus has been on the communities most impacted by air toxics.

The EPA has long been criticized for the lack of fresh perspectives on the CASAC when accessing balance on the panel. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence." [1] These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions; this is the reason why strong consideration should be given to Dr. Crystal Upperman.

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior

[1]: Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). https://www.epa.gov/sites/production/files/2020-08/documents/epa\_peer\_review\_handbook\_4th\_edition.pdf

roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean; and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Crystal's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Crystal is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Crystal earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as an U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental decisions to protect public health. In addition to her scientific expertise, I believe that she will bring a needed perspective on equity, and experience working in frontline communities that will make a difference in developing policies that are equitable and founded on health-based standards.

Sincerely,

Peggy M. Shepard

Fagor Shapard

Executive Director & Co-Founder



#### Richard E. Dunn, Director

**EPD Director's Office** 

2 Martin Luther King, Jr. Drive Suite 1456, East Tower Atlanta, Georgia 30334 404-656-4713

05/27/2021

Mr. Aaron Yeow
Designated Federal Officer
Submitted by e-mail to yeow.aaron@epa.gov

Re: Invitation for Public Comment on the List of Candidates for the Environmental Protection Agency's Clean Air Scientific Advisory Committee

Dear. Mr. Yeow:

On behalf of the Georgia Environmental Protection Division, I am offering an endorsement of **Dr. James Boylan** in response to EPA's May 10, 2021 "Invitation for Public Comment on the List of Candidates for the Environmental Protection Agency's Clean Air Scientific Advisory Committee". Dr. Boylan has extensive knowledge and understanding of the challenges facing state air pollution control agencies with regard to the implementation of the national ambient air quality standards (NAAQS). Dr. Boylan has demonstrated a high level of competence, knowledge, and expertise in the scientific and technical fields relevant to air pollution and air quality issues as detailed in this letter.

#### **Academic Credentials**

Dr. Boylan has an extensive educational background with a Bachelor's Degree in Chemical Engineering from the University of Notre Dame, a Master's Degree in Chemical Engineering from Auburn University, and a Master's Degree and Ph.D. in Environmental Engineering from Georgia Institute of Technology. His academic studies have prepared him well for this opportunity to serve on the CASAC.

#### **Work Experience**

Dr. Boylan has been employed at the Georgia Environmental Protection Division since 2002 in positions of increasing responsibility. Building on his academic background, Dr. Boylan has expertise in air quality modeling, which is integral to developing strategic plans to protect air quality. He is also knowledgeable in emission inventory preparation methods, meteorological modeling, and emission modeling. He has applied the practical knowledge gained from his work experience with his academic expertise to develop and implement plans to address the complex air quality issues facing Georgia and other states. Examples include the development of attainment and maintenance plans for the 1997 fine particulate matter NAAQS, the 2008 ozone NAAQS, and the 2015 ozone NAAQS. Dr. Boylan currently manages the Planning and Support Program of the Air Protection Branch. Dr. Boylan manages staff responsible for air quality planning, regulatory development, photochemical modeling supporting Georgia's state implementation plans, dispersion modeling in support of permitting activities, and emission

Mr. Aaron Yeow Page 2

inventories. Dr. Boylan's extensive air quality planning and regulatory experience will serve the CASAC well.

#### **Commitment to Sound Decisions Based on Science**

Dr. Boylan has consistently demonstrated a strong desire to determine what the science says and to let those analyses guide his recommendations. He works with the regulated community, policy makers, and citizens of Georgia to develop and implement plans to address ozone, fine particulate matter, sulfur dioxide, and regional haze requirements, among other air quality issues. Dr. Boylan's commitment to conducting his work in a rational, well-planned, and defensible manner has served Georgia well and will serve the CASAC well.

#### **National Commitment and Reputation**

Dr. Boylan is well known and respected in air pollution control and air quality management circles. He has authored 18 peer-reviewed journal articles on ozone and PM<sub>2.5</sub> formation, and has presented research findings at over 250 national, regional and local conferences and meetings. He is co-chair of the Southeastern States Air Resource Managers (SESARM) Coordinating Committee and co-chair of the Association of Air Pollution Control Agencies (AAPCA) Modeling Committee. Dr. Boylan also served on the CASAC Sulfur Oxides Review Panel from 2014-2018 and the chartered CASAC from 2017-2021.

#### Conclusion

The CASAC will function most effectively with a team of diverse scientific and technical experts. Strong state representation on the CASAC is critical. State personnel possess direct knowledge and experience critical to providing informed, comprehensive, and authoritative understanding of the NAAQS. Dr. James Boylan is well qualified for the CASAC and I urge your consideration of his nomination.

Thank you for your consideration of my recommendation. If you have any questions, please contact me at Richard.Dunn@dnr.ga.gov.

Sincerely,

Richard E. Dunn

PillEQJ.

Director

RED:kdh



May 27, 2021

Aaron Yeow
Designated Federal Officer
U.S. Environmental Protection Agency
Clean Air Scientific Advisory Committee (CASAC)

RE: Sabine Lange, PhD, DABT

Dear Mr. Yeow,

I am writing in support of the nomination of Dr. Sabine Lange for membership on the U.S. EPA Clean Air Scientific Advisory Committee (CASAC) on which she has served from 2018 to 2021, and has been active in various aspects of risk assessment of various air contaminates. I have known Dr. Lange for five years, and have worked with her on a couple of specific risk evaluations for her role as a Toxicology Section Manager at the Texas Commission on Environmental Quality (TCEQ).

Dr. Lange gained her PhD from the University of Texas at Houston, M.D. Anderson, and has been with TCEQ since 2014, serving as Toxicology Section Manager since 2015. She has been actively involved with the toxicology and risk assessment of numerous air quality contaminants, including ozone, sulfur dioxide, nitrogen dioxide, and lead. She has published in the peer reviewed literature, but more importantly with respect to the CASAC activities, she has been active in risk assessment of air quality standards and reports written in support of various evaluations by TCEQ.

Dr. Lange is an outstanding scientist, is a diplomat of the American Board of Toxicology, and has a strong knowledge base regarding toxicology and various aspects of fundamental biology and risk assessment. Given her role in regulatory aspects of air quality standards in her role at TCEQ, as well as her membership on the CASAC, she would be an outstanding member of CASAC going forward, and I strongly recommend her for membership on that committee.

Sincerely yours,

Samuel M. Cohen, MD, PhD

4 M. Cl

Professor

Department of Pathology/Microbiology Havlik-Wall Professor of Oncology

University of Nebraska Medical Center



#### May 31, 2021

Mr. Aaron Yeow
Designated Federal Officer (DFO), Clean Air Scientific Advisory Committee
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460

Re: Invitation for Public Comment on the List of Candidates For EPA's Clean Air Scientific Advisory Committee (CASAC)

Dear Mr. Yeow:

I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC). CASAC plays an important role under the Clean Air Act in providing expert advice to EPA that includes reviewing EPA's air quality criteria and national ambient air quality standards developed under Clean Air Act (CAA) sections 108 and 109, as well as providing EPA with other related scientific and technical advice.

On May 10, 2021, EPA's Science Advisory Board issued an "Invitation for Public Comment on the List of Candidates for the CASAC," a seven-member Federal Advisory Committee (FAC) tasked with providing EPA with independent scientific advice on national ambient air quality standards. As a policy maker in Washington, DC focused on federal and local impacts of the environment, I want to be sure the FAC has strong members focused on pollution and climate impacts.

The EPA has long been criticized for the lack of fresh perspectives on the CASAC when accessing balance on the panel. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence." These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions. I strongly recommend Dr. Crystal Upperman because she brings fresh and experienced perspective.

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the

<sup>&</sup>lt;sup>1</sup> Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). https://www.epa.gov/sites/production/files/2020-08/documents/epa\_peer\_review\_handbook\_4th\_edition.pdf

Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for the Maryland Department of Health. She worked as an environmental regulator for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Dr. Upperman's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Dr. Upperman is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Dr. Upperman earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflect the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health.

Sincerely,

Robert C. White, Jr.

#### Freada Kapor Klein, Ph.D.

Kapor Capital 2148 Broadway Oakland, CA 94612 (415) 297-6192 fklein@kapor.com

31st May 2021

Mr. Aaron Yeow
Designated Federal Officer (DFO), Clean Air Scientific Advisory Committee
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R

Washington, DC 20460

Via Email: <a href="mailto:yeow.aaron@epa.gov">yeow.aaron@epa.gov</a>

Re: Invitation for Public Comment on the List of Candidates For EPA's Clean Air Scientific Advisory Committee (CASAC)

Dear Mr. Yeow:

I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC). CASAC plays an important role under the Clean Air Act in providing expert advice to EPA that includes reviewing EPA's air quality criteria and national ambient air quality standards developed under Clean Air Act (CAA) sections 108 and 109, as well as providing EPA with other related scientific and technical advice.

On May 10, 2021, EPA's Science Advisory Board (SAB) issued a "Invitation for Public Comment on the List of Candidates for the CASAC." I have been an investor and philanthropist on environmental science issues, amongst others, for over 20 years. My work spans non-profits/NGOs, foundations, academic institutions and for profit tech-enabled startups. For full disclosure, I was an early investor in Aclima where Dr. Upperman is now employed and in fact introduced her to the founder. It is my confidence in Dr. Upperman's commitment to rigorous environmental science and to the practical application of that science to improve human health and quality of life that led me to make the introduction. That same confidence compels me to encourage CASAC to give her serious consideration. Dr. Upperman possesses a wealth of academic training and practical experience in many settings that makes her extremely well-suited to providing the EPA independent scientific advice related to the national ambient air quality standards (NAAQS).

Dr. Upperman's contributions can help blunt some of the criticisms that have been aimed at the EPA for its lack of up to date perspectives, encompassing both scientific knowledge and understanding of community concerns. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence." These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions; this is the reason why strong consideration should be given to Dr. Crystal Upperman. Her experience can add much-needed balance on the CASAC panel.

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Crystal's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Crystal is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Crystal earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health. She melds together a deep understanding of communities most vulnerable to the consequences of climate change with her extensive academic and non-profit experience. It is this combination of unparalleled academic training, and public service that the EPA's CASAC needs to be able to make informed decisions and to effectively communicate these decisions to the public.

Sincerely,

Ly Yhi, P. D

Freada Kapor Klein, Ph.D.

<sup>&</sup>lt;sup>1</sup> Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). <a href="https://www.epa.gov/sites/production/files/2020-08/documents/epa\_peer\_review\_handbook\_4th\_edition.pdf">https://www.epa.gov/sites/production/files/2020-08/documents/epa\_peer\_review\_handbook\_4th\_edition.pdf</a>

Mr. Aaron Yeow

**US Environmental Protection Agency** 

Washington, DC

RE: Clean Air Scientific Advisory Committee (CASAC) Candidate Nominations

#### Dear Mr. Yeow:

This letter is written in strong support and in favor of the current 2021 CASAC nomination of James Boylan of the Georgia Environmental Protection Division, Air Protection Branch (APB). During my career at the US Environmental Protection Agency (EPA), Region 4 office in Atlanta, GA from 1991 to 2020, I worked with Mr. Boylan in my positions as Chief of the Air Quality Modeling and Transportation Section from 2001-2011 and Chief of the Air Planning and Implementation Branch from 2011-2020 in the Region 4 Air and Radiation Division. Mr. Boylan has been of one of the most technically competent and professional colleagues I have worked with in the Southeast region during his career in the Georgia Air Protection Branch. My interactions with him were during his tenures both as a staff modeler and scientific expert and as a manager in the Georgia APB. My modeling staff never ceased to extol his unrivaled expertise in air quality modeling and the successful collaborative work supporting regional haze state implementation plan (SIP) submittals for the southeastern states and other air quality regulatory actions both for Georgia and other states. This regional haze work has continued into the second round of SIP submittals for 2021 with Mr. Boylan taking the lead in providing the work for 10 states under the collaboration among the Southeast States Air Resource Managers (SESARM) organization. In addition, I have worked directly with Mr. Boylan from 2013 to 2020 in his role as a member of our Southeast Prescribed Fire and Air Quality Workgroup, which was formed in 2013 with EPA Region 4 as the lead agency. This group includes all the 8 southeast air quality and fire agencies, federal partners, including EPA Region 4 and US Forest Service, and several nongovernmental organizations, including the Wildland Fire Leadership Council, Jones Center and NC State University Extension. Mr. Boylan has been an integral part of the success of this group and contributed to the expanding knowledge and coordination among these groups in promoting improved air quality and the expanded use of prescribed fire across the southeastern United States during our regular meetings and biennial Smoke Summits. He has always been open to contributing his technical expertise to further the goals of this workgroup at each opportunity and has been an extremely valuable member of the group.

Mr. Boylan is an outstanding collaborator and team member in working with a wide variety of groups and professionals, both inside and outside of state and federal government agencies. This has been exemplified throughout his career with the Georgia APB. He would also bring continuity and critical background to the new CASAC from his experience on the 2017-2020 CASAC for developing both ozone and fine particulate matter EPA regulatory standards. He was the consummate professional during his time on the CASAC, putting in an incredible amount of effort, dedication and diligence to complete the technical and regulatory development process under extremely tight and constrained deadlines. His outstanding work was a key and significant contribution to the successful completion of these air standards. Mr. Boylan would, without a doubt, continue his diligence and excellence in all aspects of

work for the 2021 CASAC in the future based on my experience with him during our careers in air quality.

In the event of any verification of reference or EPA credentials for the author of this recommendation, please feel free to contact Karen Hays, Chief of the Georgia APB (karen.hays@dnr.ga.gov), or Caroline Freeman, Director of the Air and Radiation Division (freeman.caroline@epa.gov), EPA Region 4.

Sincerely,

//SIGNED//

R. Scott Davis, Retired Chief, Air Planning & Implementation Branch

US EPA, Region 4, Atlanta, GA



Union of ucsusa.org Two Brattle Square, Cambridge, MA 02138-3780 t 617.547.5552 t 617.864.940

1825 K Street NW, Suite 800, Washington, DC 20006-1232 t 202.223.6133 f 202.223.6162 ucsusa.org Two Brattle Square, Cambridge, MA 02138-3780 t 617.547.5552 f 617.864.9405 500 12th Street, Suite 340, Oakland, CA 94607-4087 t 510.843.1872 f 510.843.3785 One North LaSalle Street, Suite 1904, Chicago, IL 60602-4064 t 312.578.1750 f 312.578.1751

April 28, 2021

#### **Re: Diversifying Federal Advisory Committees**

The undersigned scientific and academic organizations are writing to support racial, ethnic, and gender diversity in federal science advice, as laid out in the Biden Administration's January 27th Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking. The memo triggered a review process for all government agencies to assess the current and future needs for science advisory committees, including relevant changes to policies, processes, and practices related to vetting and selection of members[1].

In particular, the memo is explicit about the need for increased diversity and a wider range of experience and expertise of scientists serving on these committees. It asks that agencies work to "ensure that members and future nominees reflect the diversity of America in terms of gender, race, ethnicity, geography, and other characteristics; represent a variety of backgrounds, areas of expertise, and experiences; provide well-rounded and expert advice to agencies; and are selected based on their scientific and technological knowledge, skills, experience, and integrity, including prioritization of experience with evidence-based, equitable, inclusive, and participatory practices and structures for the conduct of scientific research and the communication of scientific results." Given that federal advisory committees are an important way the scientific community informs policy decisions, and that participation provides valuable career opportunities for scientists and experts looking to contribute their knowledge and perspectives at the intersection between science and policy decisions, we believe it is imperative that agencies take this directive seriously and implement it rigorously.

Lack of racial, ethnic, and gender diversity in the federal government is a persistent problem which exacerbates longstanding inequities and stifles progress[2]. Research has shown that diverse scientific teams achieve better results than racially and/or socioeconomically homogenous teams, due in part to differing backgrounds and varying perspectives[3]. In addition, the problems that agencies address and progress that agencies make have not been experienced or distributed equitably. Race, gender, sexual identity, income, and other sociodemographic factors are directly linked to environmental, health, and safety impacts [4]. The more diverse and representative science advisory committees are, the more individuals from these communities will be represented and the unique challenges they face reflected in science-based recommendations.

The administration has named racial equity as a top priority and such efforts must also ensure that federal science advice reflects the diversity of the nation. As the Biden administration takes steps to address these inequities within the federal government, we would urge agency heads to shift outreach plans, compensation models, and membership balance on federal advisory committees so that hiring external advisors is reflective of changes to internal hiring practices.

By law, federal advisory committees are required to be fair and balanced, but that definition has traditionally been narrowly focused on balanced expertise and viewpoints rather than membership inclusive and representative of different races, ethnicities, genders, backgrounds, institutions, regions, and experiences. Agency heads working collaboratively with Chief Science Officers and Designated Federal Officials can:

- Update committee charters to include more explicit and inclusive language on qualifications for members. These qualifications should not necessarily be limited to individuals with terminal degrees in a particular field, tenured academics, or individuals solely within STEM fields. Scientific expertise could include individuals with experience living, working, and conducting community science in environmental justice communities, and/or holders of Traditional Ecological Knowledge (TEK), for example.
- Change committee membership selection processes to include a range of backgrounds and experiences within the committee's definition of "balance" and explicitly ask for demographic information on committee nomination forms.
- Design incentive structures, such as compensation for committee meeting time, to recruit a broader pool of the best candidates, including qualified early-career scientists, and reduce barriers to participation for open committee positions.
- Include in efforts to solicit committee nominations outreach to:
  - Academic institutions that serve historically underrepresented communities, including Historically Black Colleges and Universities (HBCUs), Asian American and Native Pacific Islander-Serving Institutions, Tribal Colleges and Universities, Hispanic Serving Institutions and their consortia (i.e. American Indian Higher Education Consortium (AJHEC), Hispanic Association of Colleges and Universities), and institutions that serve higher rates of Pell Grant recipients, rural, first-generation, and other similarly underrepresented communities [5].
  - Administrators and principal investigators of existing agency programs, and their networks, which fund and support the advancement of underrepresented scientists, for example: the National Institute of General Medical Sciences Institutional Training Grants and Research Education Programs, the National Science Foundation's Centers of Research Excellence in Science and Technology (CREST) and HBCU Research Infrastructure for Science and Engineering (HBCU-RISE), the US Department of Education Office of Postsecondary Education Federal TRIO Programs, and other relevant programs [6].

Moreover, there should be accountability in this undertaking. Data collection and analyses on these efforts would help the administration and agencies understand outcomes from this review process, best practices, and ways to improve. Transparency in the process and methodologies of this change in policy and practice would allow researchers and the public to understand whether committees are becoming more inclusive.

We believe that broader, more diverse representation on science advisory committees will lead to more comprehensive and equitable decision making at the federal level. We would like to offer the collective power and specialized expertise of our organizations and the scientific community to help with this undertaking. Collectively, our organizations and others can offer a variety of resources for implementing meaningful changes to agency practices:

- 500 Women Scientists has a website dedicated to resources for finding women, including women of color, who are experts in a variety of technical fields[7].
- Scientific organizations representing scientists of color, like the National Society of Black Engineers, the Society for Advancement of Chicanos/Hispanics and Native Americans in Science, and the Black Doctoral Network, have thousands of members who could be reached when there are openings on committees in need of relevant expertise[8].
- The National Science Foundation (NSF) has designated states with lower percentages of 5-year funding of NSF research projects in its Established Program to Stimulate Competitive Funding (EPSCoR), so agencies can target inclusion of those states as potentially underrepresented. Similar strategies could be taken at agencies to prioritize membership shifts necessary on various science advisory committees[9].
- Green 2.0 serves as a watchdog for diversity, equity, and inclusion in the
  environmental sector, tracking how institutions are doing and providing resources to
  help implement concrete changes[10]. Similar tracking and accountability
  mechanisms would help ensure federal agencies are making progress toward better
  representation of a wider range of experts on its advisory committees.

As the Biden administration works to advance diversity, equity, and inclusion, it must embrace equal opportunity within the federal scientific workforce and the thousands of science committee advisors that support agencies on a range of scientific and technical matters. Now is the time to make changes to the U.S. science advice infrastructure that will provide for more rich, complex, and valuable expert input and serve as a model for science advice across the U.S. and abroad.

Please let us know if you would like to meet to discuss the content of this letter. You may contact Genna Reed at the Union of Concerned Scientists at <a href="mailto:GReed@ucsusa.org">GReed@ucsusa.org</a> to schedule a meeting with representatives from the organizations signed onto this letter.

Sincerely,

Union of Concerned Scientists

500 Women Scientists

American Association of University Professors (AAUP)

American Federation of Teachers

American Geophysical Union

American Institute of Biological Sciences

American Public Health Association

Antioch University

Association of Environmental Studies and Sciences

Ciencia Puerto Rico

Global Council for Science and the Environment

**Human Impact Partners** 

International Society for Environmental Epidemiology -- North American Chapter

Natural Science Collections Alliance

National Society of Black Engineers (NSBE) Public Policy SIG

Society of Women Engineers

#### Cc:

Centers for Disease Control and Prevention, Director Rochelle Walensky

Census Bureau, Acting Director Ron Jarmin

Department of Commerce, Secretary Gina Raimondo

Department of Energy, Secretary Jennifer Granholm

Department of Human Health Services, Secretary Xavier Becerra

Department of Interior, Secretary Deb Haaland

Department of Labor, Secretary Marty Walsh

Department of Transportation, Secretary Pete Buttigieg

Environmental Protection Agency, Administrator Michael Regan

Health Resources and Services Administration, Deputy Administrator Diana Espinosa

National Aeronautics and Space Administration, Acting Administrator Steve Jurczyk

National Institutes of Health, Director Francis Collins

National Institute for Occupational Safety and Health, Director John Howard

National Institute of Standards and Technology,

Associate Director for Laboratory Programs James Olthoff

National Marine Fisheries Service, Acting Assistant Administrator Paul Doremus

National Oceanic and Atmospheric Administration,

Acting Assistant Administrator Nicole LeBoeuf

Nuclear Regulatory Commission, Chairman Christopher Hanson

National Science Foundation Director, Sethuraman Panchanathan

Occupational Safety and Hazard Administration,

Acting Assistant Secretary James Frederick

Substance Abuse and Mental Health Services Administration,

Acting Assistant Secretary Tom Coderre

U.S. Department of Agriculture, Secretary Thomas Vilsack

U.S. Fish and Wildlife Service, Principal Deputy Director Martha Williams

U.S. Food & Drug Administration, Acting Commissioner Janet Woodcock

U.S. Geological Survey, Acting Director Dave Applegate

[1] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/

[2] <a href="https://science.house.gov/staff-reports/scientific-brain-drain-quantifying-the-decline-of-the-federal-scientific-workforce">https://science.house.gov/staff-reports/scientific-brain-drain-quantifying-the-decline-of-the-federal-scientific-workforce</a>;

https://www.sciencemagazinedigital.org/sciencemagazine/09\_april\_2021\_Main/MobilePagedArticle.action?articleId=1675739&app=false#articleId1675739

[3] https://www.si.edu/content/OEEMA/OSTP-OPM ReportDigest.pdf;

https://doaj.org/article/379ec5d0302540aeb66893c40b554fb2

[4] https://digitalcommons.law.yale.edu/yjil/vol18/iss1/12/;

https://www.nature.com/articles/nrcardio.2015.152

- [5] https://www.aanapisi.net/; http://www.aihec.org/index.html; https://www.hacu.net/hacu/default.asp
- [6] https://www.nigms.nih.gov/research-training/resources/funded-institutional-training-grants;

https://www.nsf.gov/funding/pgm\_summ.jsp?pims\_id=6668&org=NSF;

https://www2.ed.gov/about/offices/list/ope/trio/index.html

- [7] https://500womenscientists.org/related-resources
- [8] https://www.nsbe.org/home.aspx; https://www.sacnas.org/; https://www.blackphdnetwork.com/
- [9] https://www.energy.gov/articles/us-department-energy-announces-21-million-research-epscorstates
- [10] https://diversegreen.org/about/

ucsusa.org Two Brattle Square, Cambridge, MA 02138-3780 t 617.547.5552 f 617.864.9405 2397 Shattuck Avenue, Suite 203, Berkeley, CA 94704-1567 t 510.843.1872 f 510.843.3785 One North LaSalle Street, Suite 1904, Chicago, IL 60602-4064 t 312.578.1750 f 312.578.1751

June 1, 2021

Mr. Aaron Yeow Designated Federal Officer, CASAC **Environmental Protection Agency** Yeow.Aaron@epa.gov

#### Re: May 10, 2021 Invitation for Public Comment on the List of Candidates For the Environmental Protection Agency's Clean Air Scientific Advisory Committee

The Union of Concerned Scientists, representing over 500,000 members and supporters, urges EPA to select for its Clean Air Scientific Advisory Committee (CASAC) members who are qualified, independent, and reflect the diversity of the scientific community.

Specifically, we ask that CASAC members have the appropriate qualifications and scientific expertise to review the quality and relevance of the scientific and technical information being assessed by the EPA as the basis for the National Ambient Air Quality Standards (NAAQS) under the Clean Air Act. The CASAC executive committee is a body of just seven scientists, engineers, and other experts in a range of disciplines who provide peer review and advice on the technical aspects of air quality criteria and the NAAQS. Thus, it is crucial that the EPA ensure CASAC, along with any subsequently formed pollutant review panels, covers the breadth, depth and diversity of expertise needed to conduct NAAQS reviews.

We appreciate that Administrator Regan values the role of EPA's science advisory committees and are encouraged by his decision to reconstitute SAB and CASAC membership to ensure they are comprised of high-quality experts free from conflicts of interest and are appropriately balanced. As EPA makes appointments for all of its committees, UCS encourages EPA to make public in clear, comprehensive language how individuals are vetted for membership and for participation in specific matters and how balance is defined, with respect to expertise, backgrounds, and perceived bias. It should also make public a clear description of the circumstances warranting recusal of members on specific matters and a commitment that knowledge of these recusals will be made public. We would like to clarify that a CASAC candidate holding a current or previous EPA grant does not represent a conflict of interest and should not be grounds for exclusion of individuals from consideration from science advisory committees, as has been confirmed by the courts and Administrator Regan.<sup>2</sup>

It is crucial that the EPA use CASAC as a vital resource to inform the agency's decisionmaking. The EPA is charged with making policy decisions to protect public health and the environment that are grounded in the best available scientific information, and scientific recommendations from CASAC are an integral part of the EPA decisionmaking process. Further, public acceptance of EPA decisions becomes more likely when CASAC is comprised of accomplished, mainstream scientists without financial conflicts of interest. Thus, nominees appointed to these positions should be clearly independent and experts in their fields. This ensures the EPA has the best scientific advice in its efforts to protect public health and the environment.

UCS also recommends that the pollutant-specific review panels are reinstated to supplement the expertise of the CASAC executive committee, and that the same vetting procedures are employed for determining qualifications and making appointments.

Further, the Biden Administration's January 27th Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking is explicit about the need for increased racial, ethnic, and gender diversity and a wider range of experience and expertise of scientists serving on government science advisory committees.<sup>3</sup> UCS led 16 scientific, professional, and academic organizations in April on a letter with recommendations for how agencies can actively follow the memo's direction to improve diversity on its committees.<sup>4</sup> In its May response, EPA stated that "it is critical that all federal advisory committees leverage the available tools and resources to ensure a diverse pool of applicants. EPA agrees that this will contribute to a broader, more diverse representation on science advisory committees and will lead to more comprehensive and equitable decision making at the federal level." We hope to see appointments to CASAC and SAB that are reflective of that stated commitment.

In conclusion, we urge you to ensure a high standard of qualifications, independence, and diversity of identities and backgrounds for members of CASAC in order to make sure that landmark public health protections promulgated by the EPA begin with rigorous science and continue to improve the lives of those in the United States.

Sincerely,

Genna Reed

Senior Analyst, Center for Science and Democracy Union of Concerned Scientists 1825 K Street NW, Suite 800 Washington, DC 20006

Genna Reed

<sup>&</sup>lt;sup>1</sup> Kelly, ML, Reed G, Goldman GT, Carter JM. Safeguarding against distortions of scientific research in federal policymaking. *Environmental Law Reporter*. 2021;51(1):10014-10025. https://elr.info/news-analysis/51/10014/safeguarding-against-distortions-scientific-research-federal-policymaking.

<sup>2</sup> 438 F. Supp. 3d 220 (S.D.N.Y. 2020); Environmental Protection Agency. 2021. "Administrator Regan Directs EPA to Reset Critical Science-Focused Federal Advisory Committees." Press Release, March 31. https://www.epa.gov/newsreleases/administrator-regan-directs-epa-reset-critical-science-focused-federal-advisory.

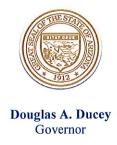
<sup>3</sup> White House. 2021. "Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking." January 27. https://www.whitehouse.gov/briefing-room/presidential-

actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/.

See attached letter and available at Reed, G. 2021. "Federal Government Should Embrace More Diverse and

<sup>&</sup>lt;sup>4</sup> See attached letter and available at Reed, G. 2021. "Federal Government Should Embrace More Diverse and Inclusive Science Advice." The Equation (blog). April 29. https://blog.ucsusa.org/genna-reed/federal-government-should-embrace-more-diverse-and-inclusive-science-advice/.

<sup>&</sup>lt;sup>5</sup> Reed, G. 2021. "EPA Says More Diverse Advisory Committees Will Mean More Equitable Decisions." The Equation (blog). May 17. https://blog.ucsusa.org/genna-reed/epa-more-diverse-advisory-committees-more-equitable-decisions/.



#### Office of the State Forester

### **Arizona Department of Forestry and Fire Management**



Date: 5/27/2021

**RE: Matt Pace CASAC Nomination** 

Based on the professionalism, air quality expertise, and problem solving skill that Matt Pace has exhibited in his work with with the Arizona Department of Forestry and Fire Management, I, the Director of the Department of Forestry and Fire Management, fully support his nomination to the EPA Clean Air Scientific Advisory Committee (CASAC).

In addition to his daily work that includes mentoring a team of air quality forecasters and performing vital smoke management coordination related to prescribed fire and wildfires, Matt recently developed, trained on, and promoted the use of a wildfire smoke forecast that can be released to the public within hours of a wildfire starting, allowing everyone involved to be quickly and easily informed about potential smoke impacts.

Thank you for your consideration of Matt Pace for a seat on the EPA Clean Air Scientific Advisory Committee (CASAC). His nomination has my full support.

Sincerely,

**David Tenney** 

Arizona State Forester

#### **NAAQS Regulatory Review and Rulemaking Coalition**

June 1, 2021

# COMMENTS OF THE NAAQS REGULATORY REVIEW (NR3) COALITION ON THE LIST OF CANDIDATES FOR THE ENVIRONMENTAL PROTECTION AGENCY'S CLEAN AIR SCIENTIFIC ADVISORY COMMITTEE

The NAAQS Regulatory Review and Rulemaking (NR3) Coalition offers the following comments on the list of candidates for service as a member of the Clean Air Scientific Advisory Committee (CASAC or the Committee) that the Environmental Protection Agency (EPA or Agency) posted on CASAC's home page on May 10, 2021. By way of background, members of the NR3 Coalition are committed to compliance with Clean Air Act (CAA) requirements, while continuing to facilitate economic growth in the United States. We note that air quality improved significantly between 1970 and 2019, while both the U.S. gross domestic product and population grew steadily.

The NR3 Coalition participates in EPA rulemakings on National Ambient Air Quality Standards (NAAQS) and NAAQS implementation. In this regard, the NR3 Coalition provided comments to CASAC during the Agency's recent reviews of the NAAQS for PM and ozone. Taking into account what we learned from our experience with CASAC during those proceedings, we offer the following comments concerning the list of candidates for possible CASAC membership.

As a preliminary matter, we note that Administrator Regan's action in ending the terms of all members of CASAC simultaneously is unprecedented and disruptive to ongoing reviews and practices, where at least some continuity of membership would be helpful. Moreover, EPA has not indicated its plans for rebuilding CASAC's membership. Furthermore, the Agency has not indicated whether it intends to reinstitute the use of pollutant-specific panels to assist CASAC or if the Agency will continue to rely on consulting experts. Finally, EPA has provided no guidance on how its plans for CASAC mesh with the mandatory statutory NAAQS review deadline. We encourage EPA to continue its pursuit of transparency by providing more information on its plans for CASAC and to extend the comment period so that stakeholders can consider those plans in developing their comments.

In the interim, the NR3 Coalition highlights the following requirements for CASAC's membership for EPA to consider in developing its plans for CASAC:

 Section 109(d)(2) of the CAA specifies that CASAC's role is the provision of "independent advice" to EPA on the scientific issues involved in setting NAAQS.

- CASAC is subject to the requirements of the Federal Advisory Committee Act (FACA). Section 5(b)(3) of FACA requires that CASAC's membership be "fairly balanced in terms of the points of view represented and the functions to be provided by" CASAC.
- President Biden's Memorandum of January 27, 2021 on "Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking" explains that CASAC members must be "selected based on their scientific and technological knowledge, skills, experience, and integrity, including experience conducting and overseeing scientific research and utilizing scientific and technological information and data in agency decision-making, prioritizing experience with evidence-based, equitable, inclusive, and participatory practices and structures for the conduct of scientific research and the communication of scientific results."
- EPA's own *Peer Review Handbook* includes several important criteria to help ensure those selected to serve on CASAC are independent and impartial.
  - This Handbook makes clear that CASAC's members should not be associated with the generation, either directly or indirectly, of materials that the Committee will review, but that they should have technical expertise in the subject matter of the materials that they will be reviewing.
  - The Handbook instructs EPA to evaluate potential peer reviewers to determine if their participation in the review might pose ethical issues such as potential conflicts of interest or the appearance of a loss of impartiality.
    - To help inform this determination, the Handbook explains that the conflict of interest analysis by the official selecting members of a peer review panel such as CASAC—and the conflict of interest certification required by the potential peer reviewer—should address whether the candidate to serve as a peer reviewer has "made any public statements or taken positions on or closely related to the subject topic under review?"
    - This important criterion is consistent with guidance by the National Institutes of Health (NIH) for "Managing Conflict of Interest in NIH Peer Review of Grants and Contracts." <a href="https://grants.nih.gov/policy/peer/peer-coi.htm">https://grants.nih.gov/policy/peer/peer-coi.htm</a>. That guidance defines the appearance of a conflict of interest as "[a]ny situation that could cause a reasonable person with all the relevant facts to question the impartiality of the reviewer or that leads a reviewer to question his or her objectivity . . . ."

Considering these requirements, the NR3 Coalition recommends the following:

- To ensure CASAC's advice is independent of EPA, those serving on CASAC should not have worked for EPA on NAAQS reviews, meaning that former EPA staffers are not suitable candidates for CASAC membership. Furthermore, the independence of any candidate who has previously been contracted by EPA for work on NAAQS review—for example to draft chapters of Integrated Science Assessments (ISAs) or to conduct risk or exposure analyses—should be thoughtfully considered. At a minimum, to avoid even an appearance that impartiality is lacking, any member who has done such work for EPA should be required to recuse themselves from the review of that work or of conclusions or recommendations that rely on it.
- To avoid any appearance of the lack of impartiality, we question whether any former CASAC members who served on the Independent Particulate Matter Review Panel (so called "shadow" CASAC review panel) qualifies for appointment to CASAC. That Panel's public statements include the following in a 2020 "Sounding Board" in the *New England Journal of Medicine*, "We unequivocally and unanimously concluded that the current PM<sub>2.5</sub> standards do not adequately protect public health." Several of the current candidates for CASAC were a part of that Panel and joined that statement, suggesting pre-judgment of an issue that will likely come before CASAC in the near future.
- Diversity of viewpoints, career experience, and impartiality in terms of both science and policy should be taken into account in appointing members to CASAC to provide the required balance.
  - CASAC members must focus on the scientific and technical merit of EPA's work, rather than advocating for a particular policy outcome. To the extent that CASAC is called on to provide policy advice, however, the Committee's membership must include balance in terms of any previously expressed policy positions.
  - CASAC should reflect the full diversity of scientific perspective. Balance on the Committee should go beyond a balance in expertise to include a balance in viewpoints on key scientific issues under consideration.
  - CASAC should also include diversity of education and experience among its members. The NR3 Coalition notes that the list of CASAC candidates includes multiple individuals who were either educated at or are employed by the Harvard School of Public Health, the University of Rochester Medical Center, or the New York University Grossman School of Medicine. Because those affiliated with a particular institution are more likely to share the same perspective, CASAC's diversity would be better served if no more than one member of the Committee were to have ties to a single institution. In addition, this approach should facilitate diversity of primary expertise among CASAC's members.

Finally, CASAC should encompass the breadth of expertise needed to assist EPA in evaluating the applicability, and honing its analysis, of science underlying regulatory decision-making. CASAC requires the expertise to translate epidemiological findings appropriately into risk assessment. This translation process includes, but is not limited to, hazard identification, dose-response relationship assessment, and exposure characterization. We also encourage inclusion on CASAC of members with expertise in causal analysis, evidence integration, and biostatistics. The inclusion of candidates who have experience in integrating evidence is important because expertise in conducting research in a particular field is not equivalent to expertise in the integration and synthesis of evidence in that field with other evidence. In addition, any pollutant-specific review panels or consulting experts who assist CASAC should include experts with diverse perspectives in each of these fields. As ambient air concentrations of criteria pollutants continue to decrease due to the steadfast efforts across the public and private sectors, it becomes increasingly important to ensure the accuracy and precision of EPA's assessments and a clear, transparent understanding of the underlying uncertainty.

We hope that these comments are helpful and look forward to continuing to follow CASAC's work. If you have questions about these comments, please contact Joe Stanko (<u>istanko@huntonak.com</u> or 202/955-1529) or Cindy Langworthy (clangworthy@huntonak.com or 202/955-1525).



33 N. Stone Avenue, Suite 700 Tucson, Arizona 85701-1429 www.pima.gov/deq

Ursula Kramer Nelson, P.E. Director

(520) 724-7400 FAX (520) 838-7432

via email: yeow.aaron@EPA.gov

June 1, 2021

EPA CASAC Nomination
Aaron Yeow, Designated Federal Officer
RE: CASAC Nomination Letter of Support

Dear Mr. Yeow:

I am honored to write a letter of support for Dr. Matthew Pace's nomination for the EPA Clean Air Scientific Advisory Committee (CASAC). Matt is incredibly passionate and knowledgeable about air quality and meteorology and brings extensive experience to the table as a forecaster, communicator and problem solver. Last year he developed the ADEQ Wildfire Smoke Forecast which was first used during the Bighorn Fire when Tucson and local communities were inundated by wildfire smoke. This product served as a critical tool to keep residents updated on wildfire smoke impacts. The forecast is a coordinated effort between ADEQ and the United States Forest Service (USFS), and part of that coordination has included agencies, such as PDEQ, in daily smoke briefings for our area. This coordination allowed us to have the most up-to-date information concerning smoke, and we were able to ask any questions and receive immediate answers. Due to this seamless process, PDEQ was able to use its own communication channels to supply appropriate and timely information to its constituents.

Matt also developed hourly AQI forecasting capabilities for ADEQ, who now provides these 5-day forecasts 5-days out giving residents and sensitive populations the critical information they need to make informed decisions about their air quality throughout each day to help protect their health. ADEQ provides this forecast for several areas across Arizona, including for the Tucson area in Pima County.

I fully support the nomination of Matt Pace to the CASAC. As a Ph.D. Meteorologist and Principal Air Quality Scientist at ADEQ, he is an excellent communicator and expert across many areas of air quality, especially western air quality issues, and he is suited to bring a unique perspective and tremendous skillset to the CASAC.

Sincerely,

Ursula K. Nelson, P.E.

Director

Ursula.Nelson@pima.gov

Ursula K. Nelson



Protecting nature. Preserving life.

Maryland/DC Chapter 425 Barlow Place, Ste. 100 Bethesda, MD 20814 Tel (301) 897-8570 Fax (301) 897-0858 nature.org

June 1, 2021

Mr. Aaron Yeow
Designated Federal Officer (DFO), Clean Air Scientific Advisory Committee
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.

Mail Code: 1400R Washington, DC 20460

Via Email: <a href="mailto:yeow.aaron@epa.gov">yeow.aaron@epa.gov</a>

Re: Invitation for Public Comment on the List of Candidates for EPA's Clean Air Scientific Advisory Committee (CASAC)

Dear Mr. Yeow:

I respectfully submit this letter of support for Dr. Crystal Upperman who has been nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC). CASAC plays an important role under the Clean Air Act in providing expert advice to EPA that includes reviewing EPA's air quality criteria and national ambient air quality standards developed under Clean Air Act (CAA) sections 108 and 109, as well as providing EPA with other related scientific and technical advice.

I currently serve as Executive Director of the Maryland/DC chapter of the Nature Conservancy (TNC). TNC is a global environmental nonprofit working to create a world where people and nature can thrive. Founded in the U.S. through grassroots action in 1951, The Nature Conservancy has grown to become one of the most effective and wide-reaching environmental organizations in the world. Thanks to more than a million members and the dedicated efforts of our diverse staff and over 400 scientists, we impact conservation in 72 countries and territories: 38 by direct conservation impact and 34 through partners. Our mission is to conserve the lands and waters on which all life depends.

The EPA recognizes the need for new perspectives on the CASAC when accessing balance on the panel. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency, "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence." These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions; this is the reason why strong consideration should be given to Dr. Crystal Upperman.

<sup>&</sup>lt;sup>1</sup> Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). https://www.epa.gov/sites/production/files/2020-08/documents/epa\_peer\_review\_handbook\_4th\_edition.pdf

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program.

Crystal's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Crystal is a volunteer trustee of The Nature Conservancy's Maryland/DC chapter and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity.

Crystal earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's unique background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health.

Sincerely,

Tim Purinton
Executive Director

CC: Dr. Crystal Upperman



May 28, 2021

Mr. Aaron Yeow Designated Federal Officer Environmental Protection Agency 1300 Pennsylvania Ave NW Washington, DC 20460 yeow.aaron@epa.gov

Dear Mr. Yeow,

On behalf of the American Lung Association (ALA), it is with great honor and pleasure that I write this letter of support for Dr. Jessica Castner's nomination for the Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC).

Dr. Castner has been a partner and volunteer of the ALA, and specifically, the Asthma Coalition of Erie, Monroe & Niagara Counties for many years. During her tenure, she has served as a data analyst assisting with the interpretation of local, state, and national data regarding asthma trends and how the environment has impacted our strategies to keep our community healthy, in regards to asthma. She has also served as faculty/instructor during our two-day Asthma Educator Institute, which prepares candidates to become certified asthma educators and assist with helping the community increase their self-management skills of their asthma and understand the environmental triggers that may exacerbate an asthma attack for a patient. During all of this partnership, Dr. Castner has brought her scientific expertise regarding the importance of air quality and how particulate matter deeply affects those in our community suffering from asthma, and other lung diseases to the forefront. Seeing that population emergency department visits are one of the major outcomes measured in the epidemiology that informs the Clean Air Act standard setting process, as an emergency nurse and nurse scientist, Dr. Castner's career has enabled first-hand witness to the immediate health effects of poor air quality, and an indepth understanding of the human response to these hazards, which she has graciously acknowledged during her partnership and assisted our staff to understand.

Dr. Castner has made it her mission to assist our organization with our work and always lends her expertise whenever we are in need of her, never with hesitation. Knowing that this possibility is an opportunity for her to participate in and embark on is an unbelievable honor for her, as she will serve as the most incredible asset to your committee, working collaboratively, effectively and constructively to assist the CASAC in truly helping to advise the EPA administrator on regulatory science related to the Clean Air Act in the United States of America. Her scientific credibility and impartiality make it such an honor and pleasure to allow me to write this letter of support for her.

It is without any hesitation or conflict that I highly recommend her for this nomination and know you will not find a more passionate, dedicated and brilliant nurse scientist to join you and make great change happen in regards to the Clean Air Act.

Thank you for your time and consideration of this amazing woman, should you have any questions or need clarification on anything, please do not hesitate to reach out to me at: <a href="mailto:jennifer.sullivan@lung.org">jennifer.sullivan@lung.org</a> or via phone: 716.271.6388.

Sincerely,

Jennifer Sullivan, MS Ed

Director, Asthma Coalition of Erie, Monroe & Niagara Counties

Manager, Health Promotions

American Lung Association in New York



June 1, 2021

To: Aaron Yeow, Designated Federal Officer, CASAC yeow.aaron@epa.gov

Re: Comments Supporting Dr. Kevin Cromar for Appointment to the CASAC

We write to express enthusiastic support for appointing Dr. Kevin Cromar to the CASAC. Dr. Cromar's biosketch details the scope of his relevant research and his public service appointments, including his membership on the Utah Air Quality Board—all of which speaks persuasively for itself.

We write to add an additional perspective based on personal and institutional experience working with Dr. Cromar in the past on policy-relevant, interdisciplinary projects at the intersection of environmental epidemiology, economics, and the law. Dr. Cromar possesses a valuable proficiency in combining his deep insights into scientific research together with a practical understanding of both the legal landscape and economic effects of policy scenarios. His work has had direct impacts on policy outcomes in New York City, Mexico City, Utah, and beyond. Given the type of advice that the CASAC needs to render to EPA on a variety of strategies for appraising, revising, and attaining NAAQS, Dr. Cromar's combination of skills and facility navigating interdisciplinary analyses should prove beneficial.

Respectfully submitted,

Richard L. Revesz, Director of the Institute for Policy Integrity and AnBryce Professor of Law and Dean Emeritus at NYU School of Law

Dr. Peter Howard, Economics Director of the Institute for Policy Integrity

Jason A. Schwartz, Legal Director of the Institute for Policy Integrity

Mr. Aaron Yeow Designated Federal Officer Email: yeow.aaron@epa.gov Submitted via email

RE: "Invitation for Public Comment on the List of Candidates For the Environmental Protection Agency's Clean Air Scientific Advisory Committee"

Mr. Yeow:

I appreciate this opportunity to provide comments<sup>1</sup> to the Environmental Protection Agency (EPA) on the candidates under consideration for appointment to the Clean Air Scientific Advisory Committee (CASAC). The focus of these comments is not on specific individuals, but on the actions that have led the EPA to request for these nominations in the first place.

## The EPA's Unreasonable Decision to Purge the Entire CASAC

On March 31, 2021, EPA Administrator Michael S. Regan announced that he was getting rid of every CASAC member.<sup>2</sup> This appears to be an unprecedented decision, getting rid of every single member of this statutorily-required panel.

One of the main justifications for this move, according to the March 31, 2021 press release,<sup>3</sup> was the Trump Administration EPA's decision to impose a conflict-of-interest policy that barred panelists from receiving EPA grants while also serving on CASAC. As a result of this policy laid out in an October 2017 directive,<sup>4</sup> the EPA now asserts qualified people were prevented from being considered for membership.

Therefore, the EPA is getting rid of *every* CASAC member because of the *possibility* that some qualified people may not have been considered. In the March 31 press release,<sup>5</sup> the EPA does not explain why the conflict-of-interest policy, struck down on procedural grounds, is not sound

 <sup>&</sup>lt;sup>1</sup> The views I have expressed in this comment are my own and should not be construed as representing any official position of The Heritage Foundation.
 <sup>2</sup> News release, "Administrator Regan Directs EPA to Reset Critical Science-Focused Federal Advisory

<sup>&</sup>lt;sup>2</sup> News release, "Administrator Regan Directs EPA to Reset Critical Science-Focused Federal Advisory Committees," U.S. Environmental Protection Agency, March 31, 2021, <a href="https://www.epa.gov/newsreleases/administrator-regan-directs-epa-reset-critical-science-focused-federal-advisory">https://www.epa.gov/newsreleases/administrator-regan-directs-epa-reset-critical-science-focused-federal-advisory (accessed June 1, 2021).</a>
<sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> U.S. Environmental Protection Agency, "Strengthening and Improving Membership on EPA Federal Advisory Committees," October 31, 2017, https://www.epa.gov/sites/production/files/2017-10/documents/final draft fac directive-10.31.2017.pdf (accessed June 1, 2021).

<sup>&</sup>lt;sup>5</sup> The March 31, 2021 press release appears to be the most definitive document articulating the rationale for the CASAC purge. For example, the EPA does not explain its rationale for getting rid of every CASAC member in its "Request for Nominations." *See*, U.S. Environmental Protection Agency, "Request for Nominations of Candidates to the EPA's Clean Air Scientific Advisory Committee (CASAC)," *Federal Register*, Vol. 86, No. 61 (April 1, 2021), pp. 17146–17147, https://www.govinfo.gov/content/pkg/FR-2021-04-01/pdf/2021-06715.pdf (accessed June 1, 2021).

policy. More importantly, the agency does not explain why the CASAC members who have been removed were not qualified. Further, the EPA does not identify any problems with their work product or any factors that should disqualify them from continued membership on the panel.

Instead, the EPA has taken the irrational and unreasonable action of getting rid of *known* qualified CASAC members because other people might have been put on the panel if the conflict-of-interest policy had not existed; a policy that the EPA does not claim has substantive problems or fails to prevent conflict-of-interest problems that would undermine scientific integrity.

Two additional reasons for the CASAC purge, which seem to be afterthoughts, are also listed in the March 31, 2021 press release. The EPA points to eliminated panels that allegedly helped CASAC. However, this has to do with CASAC membership. The agency does not explain how the elimination of these panels justifies getting rid of every CASAC member. If there is a concern about these panels, then the action is presumably to bring them back. Getting rid of all CASAC members is completely unrelated to achieving that objective. Quite simply, this point makes no sense.

The EPA also brings up a July 2019 Government Accountability Office (GAO) report regarding the agency's advisory committee appointments process, and the fact GAO found a couple of problems.<sup>6</sup> A routine GAO report identifying some procedural problems, which is the norm for GAO, is hardly grounds for getting rid of everyone on two of the agency's 22 advisory committees (including CASAC). The GAO does not assert any problems with the outcomes of the process. In fact, the GAO explained, "we did not assess the outcomes of the membership appointment process." The EPA itself has not explained how the specific problems identified in the GAO report undermined the CASAC membership or would justify such an extreme action as to remove every CASAC member.

Here is what the GAO did allege: the EPA in fiscal year 2018 did not take the procedural step of including EPA staff rationales for proposed membership. Yet the EPA explained in the GAO report that the agency actually *went beyond* what was required in the vetting of candidates and argued that the GAO's finding was inaccurate and possibly misleading. If anything, this more extensive process to find qualified members was better than the norm.

The GAO regularly provides recommendations in its reports. For this report, it did not recommend anything bold, and simply recommended addressing the narrow issues identified. The GAO report certainly did not recommend or even hint at taking the unreasonable action of getting rid of every CASAC member.

<sup>&</sup>lt;sup>6</sup> U.S. Government Accountability Office, "EPA Advisory Committees – Improvements Needed for the Member Appointment Process," GAO-19-280, July 2019, <a href="https://www.gao.gov/assets/gao-19-280.pdf">https://www.gao.gov/assets/gao-19-280.pdf</a> (accessed June 1, 2021).

<sup>&</sup>lt;sup>7</sup> Ibid at p. 34.

<sup>&</sup>lt;sup>8</sup> The GAO also asserted, and the EPA agreed, that the agency had not consistently evaluated the quality of financial disclosure forms of special government employees appointed to advisory committees.

This CASAC purge is even more unreasonable given that there are simpler and more direct ways to address the agency's alleged concerns. For example, if the agency does not like the conflict-of-interest policy, then it does not have to implement it (it is not being implemented now). When CASAC terms expire, then the agency can make appointment decisions accordingly.

## **Recommendation: Restore the CASAC Membership**

The EPA should undo its decision to remove all CASAC members. If there is an objective and legitimate concern about a specific member, then the agency can take action, consistent with the law. Until then, the agency should wait until terms expire to make any new appointments.

This unreasonable and arbitrary purge, at a minimum, gives the appearance that the Administrator simply wants to pick people to provide the "science" necessary to support his agenda. John Graham, former Chair of the Science Advisory Board (SAB) recently wrote, "In one fell swoop, the Biden administration team at EPA has put its policy agenda ahead of the principle of scientific integrity. Regretfully, now we are likely to see more of that behavior in the years ahead." While he was referring to the SAB purge, the same argument applies to the CASAC purge.

In 2009, President Barack Obama issued a memo<sup>10</sup> on scientific integrity in which he said, "the public must be able to trust the science and scientific process informing public policy decisions." Through the CASAC and SAB purges, the Biden administration's EPA has managed to undermine any trust in the science that will be connected to these newly formed advisory panels. And this lack of trust would be warranted.

#### **Conclusion**

I strongly urge the EPA to restore the CASAC membership and address any membership concerns in a reasonable manner, consistent with the rule of law. Unless such action is taken, the advisory boards will have little legitimacy.

Sincerely,

Daren Bakst
Senior Research Fellow in Regulatory Policy Studies
Thomas A. Roe Institute for Economic Policy Studies
Institute for Economic Freedom
The Heritage Foundation
daren.bakst@heritage.org
202.608.6163

office/memorandum-heads-executive-departments-and-agencies-3-9-09 (accessed June 1, 2021).

To Mr. Aaron Yeow Designated Federal Officer Environmental Protection Agency

# Subject: Support for nomination of Prof. Joel Schwartz to the CASAC

I am writing to support the nomination of Prof. Joel Schwartz to the Clean Air Scientific Advisory Committee (CASAC). Prof. Schwartz is a global expert in air pollution epidemiology with nearly four decades of relevant experience in air quality, epidemiology, statistics, exposure assessment, and risk assessment and over nine hundred publications in the field. He currently serves as Professor of Environmental Epidemiology at the Harvard School of Public Health and as Director of the Harvard Center for Risk Analysis. Prof. Schwartz received the John D and Catherine T MacArthur Fellowship in 1991 in recognition of his work and contributions that resulted in designation of lead in gasoline as a health risk and paved the basis for the phase out of the chemical in gasoline and stringent standards for lead in air. Subsequently he advanced robust longitudinal study methods to investigate fine particulate matter air pollution as a risk factor for early death and hospitalization. He has contributed substantially to our current understanding of the health effects of air pollution, the shape of its dose response relationship and impacts on particularly vulnerable groups.

Prof. Schwartz's expertise is uniquely well suited for the types of questions CASAC must raise and address in evaluating the underlying body of science for health-based pollution standards. In the last several years, Prof. Schwartz has focused on studying the health impacts across multiple disease outcomes from short- and long-term exposure to PM<sub>2.5</sub> and ozone. He is now one of the world's leading experts on both acute and chronic effects of air pollution exposure. His recent epidemiological work examines exposure to fine particles in the air at concentrations well below current standards with a range of adverse health effects from increased respiratory symptoms, to increased hospital admissions, to increased deaths.

He is currently assessing causality of air pollution and various health effects including hospitalization, mortality, and morbidity in multi-year, multi-million nationally representative population studies. Causality and the influence of model selection was a central focus of the recently concluded PM<sub>2.5</sub> and ozone NAAQS reviews, and Prof. Schwartz's experience and ongoing research in this area will bring critical expertise and ensure CASAC has access to the most relevant, cutting-edge research. Previously he received funding from EPA to investigate "Causal Estimates of Effects of Regional and National Pollution Mixtures on Health: Providing Tools for Policy Makers". In February 2021, Prof. Schwartz received a three-year grant from National Institute of Health to study low dose measurement error effects of multiple pollutants using causal modeling. Uncertainty associated with confounding, measurement error and the effects of uncertainty in low dose-response relationships have been a central point of discussion among CASAC and Prof. Schwartz expertise and results from the study will be invaluable to inform these discussions.

His current work with satellite hybrid models for ozone and PM<sub>2.5</sub> estimations across the U.S. fill gaps in exposure estimates for areas that are not monitored. The predictions from these models have been applied to many of the seminal Medicare analyses of over 60 million Americans which showed that African American populations had 3 times higher fine particle matter

associated mortality risk in comparison to White Caucasian populations and that health effects of air pollution (both ozone and PM<sub>2.5</sub>) persist below the current standards. Prof. Schwartz involvement in the development of the model makes him uniquely positioned to shed light on the strengths and limitations of these models as it pertains to exposure assessment and its implications for the assessment of health effects, dose response relationships and eventually policy analysis of standards.

Prof. has served on numerous state, national, and international committees related to air pollution epidemiology and statistics. This includes service on National Academy of Sciences committees. He is also former member of the Clean Air Scientific Advisory Committee. His expertise in the relevant areas, made clear by the reliance on his work in previous NAAQS reviews, position Prof. Schwartz to inform the discussion around causality, dose-response relationships, health effects, impact of different types of uncertainty of health effect estimates and thresholds and implications of all of the above on risk assessment inherent in policy analysis making him an invaluable addition to CASAC.

Dr. Schwartz's contact information is below:

Dr. Joel Schwartz
Professor of Environmental Epidemiology, Harvard School of Public Health
Landmark Center Room 4th Floor West, Room 404H
401 Park Drive
Boston, MA 02215
Phone: 617.384.8752

Attachment: Curriculum Vitae for Dr. Joel Schwartz

Sincerely,

Ananya Roy Senior Health Scientist, Health program Environmental Defense Fund 1875 Connecticut Ave NW Suite 600 Washington, DC 20009

jschwrtz@hsph.harvard.edu





The Honorable Michael Regan
Environmental Protection Agency Administrator
Office of the Administrator
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Deep concerns about the nomination of Mark Maddaloni Dr.PH, Dennis J. Paustenbach, Ph.D, and David Warheit, PhD to the Clean Air Scientific Advisory Committee

Dear Administrator Regan,

On behalf of the Asbestos Disease Awareness Organization (ADAO), an independent nonprofit dedicated to eliminating asbestos-caused diseases through education, advocacy, and community initiatives, I write to voice my deep concerns about the nominations of Mark Maddaloni Dr.PH, Dennis J. Paustenbach, Ph.D, and David Warheit, PhD to the Environmental Protection Agency's (EPA) Clean Air Scientific Advisory Committee (CASAC). We believe that Americans deserve to have their air, water, and soil free from toxic contaminants, like asbestos.

Asbestos, a known human carcinogen that kills over 40,000 Americans annually. There is wide scientific consensus that asbestos is carcinogenic from organizations including the World Health Organization, the International Agency for Research on Cancer, the International Programme on Chemical Safety, the Collegium Ramazzini, the Helsinki Declaration, the U.S Institute of Medicine of the National Academies, the National Institute for Occupational Safety and Health, just to name a few.

EPA is currently in the midst of a long overdue regulatory process of this toxic chemical and these three nominees have deeply concerning connections

Dr. Paustenbach and Dr. Maddaloni both have ties to Cardno ChemRisk. Dr. Paustenbach is the founder of ChemRisk which merged with Cardno ChemRisk. As stated by the company "is world-renowned for our original research and numerous contributions to the asbestos body of knowledge. We have conducted numerous risk assessments aimed at understanding and evaluating



human health and environmental exposures to various asbestos-containing products and fiber types. We have conducted original research to understand the potential exposure and risk using various products, and the importance of asbestos fiber type and length in risk assessment".

Dr. Paustenbach was hired by Ford Motor Company as an expert scientist. Disclosed by the Public Center for Integrity in 2016, "Ford has spent nearly \$40 million funding journal articles and expert testimony concluding there is no evidence brake mechanics are at increased risk of developing mesothelioma."

According to David Michaels, former Administrator of OSHA and author of *Doubt is Their Product*, "The scientists who own and operate these firms make sizable profits helping polluters and manufacturers of dangerous products stymie public health and environmental regulators." Michaels stated, "Should scientists whose financial success depends on influencing agency policy be appointed to Advisory Committees that help the agency set policy? It is clear to me the answer should be no."<sup>2</sup>

According to a 2007 letter from the Environmental Working Group<sup>3</sup>, "Dr. Paustenbach has spent virtually his entire career as a paid expert for polluting corporations arguing for weaker health protections for workers and the public from some of the most notorious toxic substances ever known," including asbestos. They continue, "asbestos is nothing more than a profit center for Paustenbach. It is absurd to think that he will bring any sort of objectivity to the scientific review process on chrysotile carcinogenicity. He has an overwhelming financial interest in only one outcome of this chrysotile review, that which will benefit his clients in the asbestos industry".

<sup>&</sup>lt;sup>1</sup> Morris, J., & Zou, J. J. (2016, February 16). Ford spent \$40 million to reshape asbestos science. Retrieved May 28, 2021, from <a href="https://publicintegrity.org/environment/ford-spent-40-million-to-reshape-asbestos-science/">https://publicintegrity.org/environment/ford-spent-40-million-to-reshape-asbestos-science/</a>

<sup>&</sup>lt;sup>2</sup> Michaels, D. (2007, May 17). Don't Let Mercenaries Advise EPA on Asbestos Science. Retrieved from <a href="https://thepumphandle.wordpress.com/2007/05/17/dont-let-mercenaries-advise-epa-on-asbestos-science/">https://thepumphandle.wordpress.com/2007/05/17/dont-let-mercenaries-advise-epa-on-asbestos-science/</a>

<sup>&</sup>lt;sup>3</sup> Turner, Vivian. (2007, May 16). "EWG Letter to EPA: Conflict of Interest on Advisory Board". Environmental Working Group. <a href="https://www.ewg.org/news-insights/official-correspondence/ewg-letter-epa-conflict-interest-advisory-board">https://www.ewg.org/news-insights/official-correspondence/ewg-letter-epa-conflict-interest-advisory-board</a>



In the papers cited below, both of these nominees have referenced "the potential carcinogenic effects" of asbestos and various asbestos fibers — the danger of which have been known since the 1950s.

Citing further evidence, Barry Castleman, ScD, in his 2007 Senate testimony, stated: "GM, Ford, and Daimler Chrysler have spent at least \$23 million between 2001 and spring of 2006, for the consulting and publishing services of Exponent and Chemrisk, and scientists including Dennis Paustenbach."

David Warheit, PhD has retired from the DuPont and Chemours Companies; however, he is now the president of Warheit Scientific LLC.

EPA has a duty to protect Americans from asbestos exposure. I hope you take the time to read the document citing the numerous publications by these product defense scientists<sup>5</sup>. As a mesothelioma widow, I feel strongly that none of these gentlemen should serve on the EPA Clean Air Scientific Advisory Committee.

Sincerely,

Linda Reinstein, President/CEO, Asbestos Disease Awareness Organization (ADAO)

Email: Linda.Reinstein@gmail.com

Luch Rendi

CC: Mr. Aaron Yeow, yeow.aaron@epa.gov

<sup>&</sup>lt;sup>4</sup> <u>Asbestos: Still Lethal/Still Legal: The Need To Better Protect The Health Of American Workers And Their Families,</u> 110th Cong. Senate Hearing 110-22. 5 (2007) (Barry Castleman ScD, Environmental Consultant and Author).

<sup>&</sup>lt;sup>5</sup> Reinstein, Linda, (2021, June 1) Publications by Product Defense Scientists https://www.asbestosdiseaseawareness.org/wp-content/uploads/2021/06/Publications-by-Product-Defense-Scientists.pdf



## Publications by Product Defense Scientists

Evaluation of bystander exposures to asbestos in occupational settings: A review of the literature and application of a simple eddy diffusion model

#### CORRECTION

Authors: Donovan, E.(1), Donovan, B.(1), Sahmel, J(2)., Scott, P.(3), & Paustenbach, D.(1)

#### Affiliations:

- 1 Cardno ChemRisk, San Francisco, CA, 94105 USA
- 2 Cardno ChemRisk, Boulder, CO, 80301 USA
- 3 Cardno ChemRisk, Pittsburgh, PA, USA

Conflict of Interest Statement: A small portion of the research associated with this work was originally done in preparation for litigation and was supported by a number of companies that have been, and are, involved in asbestos-related litigation. The authors were not compensated for most of the work of compiling the information for this article, or for preparing it. One of the authors (D.J.P.) has served as an expert in asbestos-related litigation.

Donovan, E., Donovan, B., Sahmel, J., Scott, P., & Paustenbach, D. (2011). Evaluation of bystander exposures to asbestos in occupational settings: A review of the literature and application of a simple eddy diffusion model. *Critical Reviews in Toxicology*, 41(1), 50–72. https://doi.org/10.3109/10408444.2010.506639

# 2007 INTERNATIONAL CHRYSOTILE ASSOCIATION: EDITORIAL - Anti-asbestos Group Excessively Alarmist

Authors and Affiliations: David M. Bernstein, Ph.D Consultant in Toxicology Geneva;

John A. Hoskins, Ph.D. Consultant in Toxicology Haslemere, Surrey UK;

Robert C. Brown, Ph.D. Toxicology Services, Stretton, Rutland, UK;

Dennis J. Paustenbach, Ph.D. ChemRisk, San Francisco, CA, USA

Prof. Maria Teresa Espinosa Restrepo, Director of Occupational Health Postgraduate Program El Bosque University, Bogota, Colombia

Professor Ken Donaldson MRC/University of Edinburgh Centre for Inflammation Research Queen's Medical Research Institute, Edinburgh, Scotland

Professor F.D. Pooley Medical Microscopy Sciences School of Medicine Cardiff University Heath Park, Cardiff, UK

Allen R. Gibbs, MB.ChB.,FRCPath Department of Histopathology Llandough HospitalPenarth, South Glamorgan, UK

Prof. Corbett McDonald, MD., MSc, FRCP Department of Occupational and Environmental Medicine Imperial College, London, U.K. & Dept. Epidemiology, McGill University, Montreal, Canada



Conflict of Interest Statement: <u>NO OFFICIAL COI</u> "Nine scientists – European, Canadian, American and South American state their position favouring a revision by the WHO and sent a letter to the new Director General requesting such. Below is the text of the letter."

Bernstein, D.M., Hoskins, J.A., Brown, R.C., Paustenbach, D.J., Restrepo, M.T.E., Donaldson, K., Pooley, F.D., Gibbs, A.R., McDonald, C. (2007). EDITORIAL - Anti-asbestos Group Excessively Alarmist. Curr Opin Pulm Med 13, 334-338.

https://chrysotileassociation.com/data/newsletter/vol 6 2 anglais VF.pdf

## Anthophyllite asbestos: state of the science review

Authors: Gaffney, S. H.(1), Grespin, M.(2), Garnick, L.(1), Drechsel, D. A.(2), Hazan, R.(4), Paustenbach, D. J.(5), & Simmons, B. D.(1)

#### Affiliations:

- 1 Cardno ChemRisk, San Francisco, CA, 94105 USA
- 2 Cardno ChemRisk, Boulder, CO, 80301 USA
- 4 Department of Epidemiology, University of Michigan, School of Public Health, Ann Arbor, MI, 48109 USA
- 5 Cardno ChemRisk, Jackson, WY, 83002 USA

Conflict of Interest statement: All the authors are employed by Cardno ChemRisk, a consulting firm that provides scientific advice to the government, corporations, law firms, and various scientific/professional organizations. Cardno ChemRisk has been engaged by suppliers of asbestos and asbestos-containing products in various litigation matters. The study design, execution, results, and interpretation are the sole responsibility of the authors, and this manuscript was prepared and written exclusively by the authors. This work may be relied upon in scientific and medical research and litigation. Two of the authors (DJP, SHG) have served as experts in asbestos litigation. They and other authors may be called upon to serve as expert witnesses in future asbestos litigation.

Gaffney, S. H., Grespin, M., Garnick, L., Drechsel, D. A., Hazan, R., Paustenbach, D. J., & Simmons, B. D. (2017). Anthophyllite asbestos: state of the science review. Journal of applied toxicology: JAT, 37(1), 38–49. https://doi.org/10.1002/jat.3356

Measured removal rates of chrysotile asbestos fibers from air and comparison with theoretical estimates based on gravitational settling and dilution ventilation <a href="https://pubmed.ncbi.nlm.nih.gov">https://pubmed.ncbi.nlm.nih.gov</a> ...

by J Sahmel · 2015 · Cited by 4 — Measured removal rates of chrysotile **asbestos** fibers from air and comparison with theoretical estimates ... 5 e Cardno ChemRisk , Sanibel , FL , USA , and.

Authors: Sahmel, J. (1), Avens, H. J. (1), Scott, P. K.(2), Unice, K.(2), Burns, A.(3), Barlow, C. A.(1), Madl, A. K.(4), Henshaw, J.(5), & Paustenbach, D. J.(6)

#### Affiliations:

1 Cardno ChemRisk, Boulder, CO, USA.



- 2 Cardno ChemRisk, Pittsburgh, PA, USA.
- 3 Cardno ChemRisk, Brooklyn, NY, USA.
- 4 Cardno ChemRisk, Aliso Viejo, CA, USA.
- 5 Cardno ChemRisk, Sanibel, FL, USA, and.
- 6 Cardno ChemRisk, Jackson, WY, USA.

Conflict of Interest Statement: The authors' affiliations are as shown on the cover page. All of the authors are employed by Cardno ChemRisk, a consulting firm that performs scientific research and support for the government, corporations, law firms, and various scientific/professional organizations. The underlying data used in this analysis were generated from a study that was partially funded by John Crane, Inc., a manufacturer of sealing devices which historically manufactured or supplied asbestos-containing gaskets and packing. Cardno ChemRisk has been engaged by John Crane, Inc., as well as other corporations, to provide general consulting, expert advice, and litigation support on scientific matters involving asbestos. The analysis reported in this article and the work associated with preparing this manuscript for publication was conceived and funded entirely by Cardno ChemRisk. This paper was prepared and written exclusively by the authors without any review or input by John Crane, Inc. employees or legal counsel, or any other outside source. Four of the authors (D.J.P., J.L.H., J.S., A.K.M.) have served as expert witnesses regarding historical exposures of various tradesmen to asbestos.

Sahmel, J., Avens, H. J., Scott, P. K., Unice, K., Burns, A., Barlow, C. A., Madl, A. K., Henshaw, J., & Paustenbach, D. J. (2015). Measured removal rates of chrysotile asbestos fibers from air and comparison with theoretical estimates based on gravitational settling and dilution ventilation. *Inhalation toxicology*, *27*(14), 787–801. https://doi.org/10.3109/08958378.2015.1110216

Airborne asbestos take-home exposures during handling of chrysotile-contaminated clothing following simulated full shift workplace exposures

by J Sahmel · 2016 · Cited by 11 — Airborne asbestos take-home exposures during handling of chrysotile-contaminated ... 2 Cardno ChemRisk, San Francisco, California, USA.

Authors: Sahmel, J.(1), Barlow, C. A.(1), Gaffney, S.(2), Avens, H. J.(1), Madl, A. K.(3), Henshaw, J.(4), Unice, K.(5), Galbraith, D.(2), DeRose, G.(5), Lee, R. J.(6), Van Orden, D.(6), Sanchez, M.(6), Zock, M.(6), & Paustenbach, D. J. (7)

#### Affiliations:

- 1 Cardno ChemRisk, Boulder, Colorado, USA.
- 2 Cardno ChemRisk, San Francisco, California, USA.
- 3 Cardno ChemRisk, Aliso Viejo, California, USA.
- 4 Cardno ChemRisk, Sanibel, Florida, USA.
- 5 Cardno ChemRisk, Pittsburgh, Pennsylvania, USA.
- 6 RJ Lee Group, Monroeville, Pennsylvania, USA.
- 7 Cardno ChemRisk, Jackson, Wyoming, USA.

Conflict of Interest Statement: At the time of the study, 8 of the 13 authors were employed by Cardno ChemRisk, a consulting firm that performs scientific research and support for the government, corporations, law firms, and various scientific/professional organizations. The other



five authors were employed by RJ Lee Group, an analytical laboratory and consulting firm. A portion of the funding for the preparation of this article and the underlying research was provided by John Crane Inc., a manufacturer of sealing devices that historically manufactured or supplied asbestos-containing gaskets and packing. Funding was also provided by Cardno ChemRisk and the RJ Lee Group. Cardno ChemRisk has been engaged by John Crane Inc., to provide general consulting, expert advice, and litigation support on scientific matters involving asbestos. This paper was prepared and written exclusively by the authors without any review or input by John Crane Inc. employees or legal counsel. Seven of the authors (DJP, JLH, DG, JS, AKM, RJL, and DVO) have served as expert witnesses regarding historical exposures of various tradesmen to asbestos. AKM, JLH, and DG have testified on matters related to the historical use of asbestos-containing gasket and packing materials on behalf of John Crane Inc.

Sahmel, J., Barlow, C. A., Gaffney, S., Avens, H. J., Madl, A. K., Henshaw, J., Unice, K., Galbraith, D., DeRose, G., Lee, R. J., Van Orden, D., Sanchez, M., Zock, M., & Paustenbach, D. J. (2016). Airborne asbestos take-home exposures during handling of chrysotile-contaminated clothing following simulated full shift workplace exposures. *Journal of exposure science & environmental epidemiology*, 26(1), 48–62. https://doi.org/10.1038/jes.2015.15

Response to: 'Reanalysis of non-occupational exposure to asbestos and the risk of pleural mesothelioma' by Finkelstein

by GM Marsh · 2018 — Response to: 'Reanalysis of non-occupational exposure to asbestos and the risk of pleural ... Affiliations. 1 Cardno ChemRisk, Pittsburgh, Pennsylvania, USA.

Authors: Marsh, G. M.(1), Riordan, A. S.(2), Keeton, K. A.(2), & Benson, S. M.(1)

#### Affiliations:

1 Cardno ChemRisk, Pittsburgh, Pennsylvania, USA.

2 Cardno ChemRisk, Chicago, Illinois, USA.

Conclusions: (not one available, but see first citation for a re-analysis)

Conflict of Interest Statement: All authors are employed by Cardno ChemRisk, a consulting firm that provides scientific advice to the government, corporations, law firms and various scientific/professional organisations. GMM is also professor of biostatistics, epidemiology and clinical and translational science and director of the Center for Occupational Biostatistics and Epidemiology at the University of Pittsburgh, Graduate School of Public Health. Cardno ChemRisk has been engaged by Schellenberg Wittmer, a law firm in Switzerland, to provide general consulting and expert advice on scientific matters, as well as litigation support. This paper was prepared and written exclusively by the authors, without review or comment by Schellenberg Wittmer counsel. One of the authors (GMM) has previously testified on behalf of Schellenberg Wittmer in asbestos litigation. The study, the preparation of the paper, including the synthesis of the findings, the conclusions drawn and recommendations made are the exclusive professional work product of the authors and may not necessarily be those of their employer.



Marsh, G. M., Riordan, A. S., Keeton, K. A., & Benson, S. M. (2018). Response to: 'Reanalysis of non-occupational exposure to asbestos and the risk of pleural mesothelioma' by Finkelstein. *Occupational and environmental medicine*, 75(6), 473–474. https://doi.org/10.1136/oemed-2018-105020

Exposure to chrysotile asbestos associated with unpacking and repacking boxes of automobile brake pads and shoes

by AK Madl · 2008 · Cited by 31 — Handling new asbestos-containing brake c ... ... 1 ChemRisk, Inc., 25 Jessie Street, Suite 1800, San Francisco, CA 94105, USA. amadl@chemrisk.com ...

Authors: Madl, A. K.(1), Scott, L. L., Murbach, D. M., Fehling, K. A., Finley, B. L., & Paustenbach, D. J.

Affiliations: 1 ChemRisk, Inc., 25 Jessie Street, Suite 1800, San Francisco, CA 94105, USA.

Competing Interests (funding): Ford Motor Company; Chrysler LLC and General Motors Corporation.

Ford Motor Company, Chrysler LLC and General Motors Corporation have been involved in litigation related to the possible exposure of brake mechanics to asbestos. The funding organizations have not reviewed any part of this manuscript prior to its publication. Some of the authors have served as expert witnesses in litigation regarding the potential asbestos health hazards to mechanics historically involved in automobile-related work.

Madl, A. K., Scott, L. L., Murbach, D. M., Fehling, K. A., Finley, B. L., & Paustenbach, D. J. (2008). Exposure to chrysotile asbestos associated with unpacking and repacking boxes of automobile brake pads and shoes. The Annals of occupational hygiene, 52(6), 463–479. https://doi.org/10.1093/annhyg/men028

An analysis of workplace exposures to asbestos at three steel mills located in the United States (1972-1982)

by D Hollins · 2019 — Cardno ChemRisk, Pittsburgh, PA, USA. 4 Paustenbach and Associates, Jackson, WY, USA. PMID: 31818240; DOI ...

Authors: Hollins, D.(1), Burns, A.(2), Unice, K.(3), & Paustenbach, D. J.(4)

#### Affiliations:

- 1 Cardno ChemRisk, San Francisco, CA, USA.
- 2 Cardno ChemRisk, Brooklyn, NY, USA.
- 3 Cardno ChemRisk, Pittsburgh, PA, USA.
- 4 Paustenbach and Associates, Jackson, WY, USA.

Conflict of Interest Statement: The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: Cardno ChemRisk is a consulting firm that provides scientific advice regarding chemical exposures and risks in occupational and environmental settings to the government, corporations, law firms, and various scientific/professional organizations. Cardno ChemRisk has been engaged by numerous companies



(defendants) involved in asbestos litigation, and three of the authors (DJP, DMH, AMB) have served and may serve again as experts in future cases. One author (DJP) has testified regarding health risks in the steel mill industry. The time invested by the authors to write this paper was provided by their employer. No client or defendant in litigation requested that this work be performed, nor reviewed this paper prior to its publication.

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Hollins, D., Burns, A., Unice, K., & Paustenbach, D. J. (2019). An analysis of workplace exposures to asbestos at three steel mills located in the United States (1972-1982). *Toxicology and industrial health*, 35(11-12), 726–737. <a href="https://doi.org/10.1177/0748233719893905">https://doi.org/10.1177/0748233719893905</a>

History of knowledge and evolution of occupational health and regulatory aspects of asbestos exposure science: 1900-1975

by CA Barlow · 2017 · Cited by 12 — The understanding by industrial hygienists of the hazards of asbestos and appropriate ways to ... 1 a Cardno ChemRisk , Boulder , CO , USA.

Authors: Barlow, C. A.(1), Sahmel, J.(1), Paustenbach, D. J.(2), & Henshaw, J. L.(3)

## Affiliations:

- 1 Cardno ChemRisk , Boulder , CO , USA.
- 2 Cardno ChemRisk, Jackson, WY, USA.
- 3 Cardno ChemRisk, Sanibel, FL, USA.

Conflict of Interest Statement: All of the authors are employed by Cardno ChemRisk, a consulting firm that provides scientific advice to the government, corporations, law firms, and various scientific/professional organizations. The study design, execution, results, and interpretation are the sole responsibility of the authors. This manuscript was prepared and written exclusively by the authors. No outside financial support was provided to any of the authors or Cardno ChemRisk for preparing the manuscript. Three of the authors (JS, DJP, and JLH) have served as experts in asbestos-related litigation. This work may possibly be relied upon in occupational health and exposure assessment research and asbestos-related litigation.

Barlow, C. A., Sahmel, J., Paustenbach, D. J., & Henshaw, J. L. (2017). History of knowledge and evolution of occupational health and regulatory aspects of asbestos exposure science: 1900-1975. *Critical reviews in toxicology*, 47(4), 286–316. <a href="https://doi.org/10.1080/10408444.2016.1258391">https://doi.org/10.1080/10408444.2016.1258391</a>

Evaluation of take-home exposure and risk associated with the handling of clothing contaminated with chrysotile asbestos

by J Sahmel · 2014 · Cited by 23 — To better characterize the take-home **asbestos** exposure pathway, a study was performed to ... 1 Cardno ChemRisk, Boulder, CO, USA.

Authors: Sahmel, J.(1), Barlow, C. A., Simmons, B., Gaffney, S. H., Avens, H. J., Madl, A. K., Henshaw, J., Lee, R. J., Van Orden, D., Sanchez, M., Zock, M., & Paustenbach, D. J.



Affiliations: 1 Cardno ChemRisk, Boulder, CO, USA.

Conflict of Interest Statement: A total of eight of the 12 authors are currently employed by Cardno ChemRisk, a consulting firm that provides scientific advice to the government, corporations, law firms, and various scientific/professional organizations. The other four authors are or were employed by RJ Lee Group, an analytical laboratory and consulting firm. The authors designed and executed the study and have sole responsibility for the writing and content of the article. Financial support for this research and the preparation of this article was provided by Cardno ChemRisk and the RJ Lee Group. Additional funding was also provided by John Crane, Inc., a manufacturer of sealing system products. This company has been involved litigation related to historical asbestoscontaining gaskets and packing. This funding source (and their counsel) did not provide editorial comments or review the article before submission to the journal. Six of the authors (DJP, JLH, JS, AKM, RJL, DVO) have served as expert witnesses on the topic of asbestos.

Sahmel, J., Barlow, C. A., Simmons, B., Gaffney, S. H., Avens, H. J., Madl, A. K., Henshaw, J., Lee, R. J., Van Orden, D., Sanchez, M., Zock, M., & Paustenbach, D. J. (2014). Evaluation of take-home exposure and risk associated with the handling of clothing contaminated with chrysotile asbestos. *Risk analysis: an official publication of the Society for Risk Analysis*, 34(8), 1448–1468. https://doi.org/10.1111/risa.12174

Exposure to airborne asbestos during removal and installation of gaskets and packings: a review of published and unpublished studies

by AK Madl · 2007 · Cited by 19 — Exposure to airborne **asbestos** during removal and installation of gaskets and ... 1 ChemRisk, Inc., San Francisco, California 94105, USA. <u>amadl@chemrisk.com</u>.

Authors: Madl, A. K.(1), Clark, K., & Paustenbach, D. J.

Affiliations: 1 ChemRisk, Inc., San Francisco, California 94105, USA

Conflict of Interest: Statement The authors appreciate the assistance of Carl Mangold for providing invaluable insight into the worker activities associated with the removal and installation of gaskets and packing. Although we initiated this evaluation, financial support for the underlying research was provided by a pump manufacturer involved in asbestos-related litigation regarding gaskets and packing. One or two of the authors has served or may serve as an expert witness in related litigation.

Madl, A. K., Clark, K., & Paustenbach, D. J. (2007). Exposure to airborne asbestos during removal and installation of gaskets and packings: a review of published and unpublished studies. *Journal of toxicology and environmental health. Part B, Critical reviews*, 10(4), 259–286. https://doi.org/10.1080/15287390600974957

Evaluation of take home (para-occupational) exposure to asbestos and disease: a review of the literature

by EP Donovan · 2012 · Cited by 47 — Evaluation of take home (para-occupational) exposure to asbestos and disease: a review ... 1 ChemRisk LLC, San Francisco, CA 94105, USA.



Authors:

Donovan, E. P.(1), Donovan, B. L., McKinley, M. A., Cowan, D. M., & Paustenbach, D. J.

Affiliations: ChemRisk LLC, San Francisco, CA 94105, USA.

Conflict of Interest Statement: The gathering of articles that were read and analyzed was associated with work done to prepare other published papers or for assembling information to be presented in courtrooms, an effort that was supported by a number of companies that have been, and are, involved in asbestos-related litigation. No organization asked the authors to write this paper, and funding for doing so was provided by the authors' employer, ChemRisk, L.L.C. One of the authors (D.J.P.) has served as an expert in asbestos litigation; including claims regarding para-occupational exposure.

Donovan, E. P., Donovan, B. L., McKinley, M. A., Cowan, D. M., & Paustenbach, D. J. (2012). Evaluation of take home (para-occupational) exposure to asbestos and disease: a review of the literature. *Critical reviews in toxicology*, 42(9), 703–731. <a href="https://doi.org/10.3109/10408444.2012.709821">https://doi.org/10.3109/10408444.2012.709821</a>

Evaluation of potential gastrointestinal carcinogenicity associated with the ingestion of asbestos by TJ Cheng — The inhalation of asbestos, depending on the fiber type and dose, may be associated with the ... 2 Cardno ChemRisk, LLC, Portland, OR, USA.

Authors: Cheng, T. J.(1), More, S. L.(2), Maddaloni, M. A.(3), & Fung, E. S.(4)

#### Affiliations:

- 1 CTEH, LLC, Carlsbad, CA, USA.
- 2 Cardno ChemRisk, LLC, Portland, OR, USA.
- 3 Cardno ChemRisk, LLC, Brooklyn, NY, USA.
- 4 Cardno ChemRisk, LLC, Aliso Viejo, CA, USA.

#### Conflict of Interest:

Funding source: Cardno ChemRisk

Research funding: Funding for the research and preparation of this manuscript was provided entirely by Cardno ChemRisk, a consulting firm that provides scientific advice to the government, corporations, law firms, and various scientific/professional organizations.

Author contributions: All authors have accepted responsibility for the entire content of this manuscript and approved its submission

Competing interests: Authors state no conflict of interest.

Informed consent: Informed consent was obtained from all individuals included in this study. Ethical approval: None declared.

Cheng, T. J., More, S. L., Maddaloni, M. A., & Fung, E. S. (2020). Evaluation of potential gastrointestinal carcinogenicity associated with the ingestion of asbestos. *Reviews on environmental health*, *36*(1), 15–26. https://doi.org/10.1515/reveh-2020-0061



Hear Asbestos. Think Prevention.

Lung proliferative and clearance responses to inhaled para-aramid RFP in exposed hamsters and rats: comparisons with chrysotile asbestos fibers

by DB Warheit · 1997 · Cited by 15 — ... Haskell Laboratory, Newark, DE 19714, USA. david.b.warheit@usa.dupont.com ... Rats were exposed nose only to chrysotile asbestos fibers at concentrations ...

Authors: Warheit, D. B.(1), Snajdr, S. I., Hartsky, M. A., & Frame, S. R.

Affiliations: 1 DuPont Haskell Laboratory, Newark, DE 19714, USA.

Conflict of Interest: This study was sponsored by the DuPont Company, an AkzoNobel Corporation.

Warheit, D. B., Snajdr, S. I., Hartsky, M. A., & Frame, S. R. (1997). Lung proliferative and clearance responses to inhaled para-aramid RFP in exposed hamsters and rats: comparisons with chrysotile asbestos fibers. *Environmental health perspectives*, 105 Suppl 5(Suppl 5), 1219–1222. https://doi.org/10.1289/ehp.97105s51219

Principles for characterizing the potential human ... - NCBI - NIH https://www.ncbi.nlm.nih.gov > articles > PMC1260029

by G Oberdörster · 2005 · Cited by 2255 — The three key elements of the toxicity screening strategy are: Physicochemical Characteristics, In Vitro Assays (cellular and non-cellular), and In ...

Authors: Oberdörster, G.1, Maynard, A.2, Donaldson, K.3, Castranova, V4., Fitzpatrick, J.5, Ausman, K.6, Carter, J.7, Karn, B.8,9, Kreyling, W.10, Lai, D., Olin, S.11, Monteiro-Riviere, N.5, Warheit, D.12, Yang, H.13, & ILSI Research Foundation/Risk Science Institute Nanomaterial Toxicity Screening Working Group.14

#### Affiliations:

- 1 Department of Environmental Medicine, University of Rochester, 601 Elmwood Avenue, P.O. Box EHSC, Rochester, NY 14642, USA
- 2 Project on Emerging Nanotechnologies, Woodrow Wilson International Center for Scholars, 1300 Pennsylvania Avenue, N.W., Washington, DC 20004-3027, USA
- 3 MRC/University of Edinburgh Centre for Inflammation Research, ELEGI Colt Laboratory Queen's Medical Research Institute, 47 Little France Crescent, Edinburgh EH16 4TJ, UK
- 4 Pathology and Physiology Research Branch, Health Effects Laboratory Division, National
- Institute for Occupational Safety and Health, 1095 Willowdale Road, Morgantown, WV 26505, USA
- 5 Risk Science Institute, ILSI Research Foundation, International Life Sciences Institute, One Thomas Circle, N.W., Suite 900, Washington, DC 20005-5802, USA
- 6 Center for Biological and Environmental Nanotechnology, MS-63, P.O. Box 1892, Rice University, Houston, TX 77251-1892, USA
- 7 Respiratory/Inhalation Toxicology, Central Product Safety, Procter & Gamble Company, PO Box 538707, Cincinnati, OH 45253-8707, USA
- 8 Office of Research and Development, United States Environmental Protection Agency, Ariel Rios Building, Mail Code: 8722F, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460, USA



9 Project on Emerging Nanotechnologies, Woodrow Wilson International Center for Scholars, 1300 Pennsylvania Avenue, N.W., Washington, DC 20004-3027, USA

10 Institute for Inhalation Biology & Focus Network: Aerosols and Health, GSF National Research Centre for Environment and Health, Ingolstadter Landstrasse 1, 85764 Neuherberg, Munich, Germany

11 Risk Assessment Division, Office of Pollution Prevention & Toxics, United States Environmental Protection Agency, 7403M, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460, USA

12 Center for Chemical Toxicology and Research Pharmacokinetics, College of Veterinary Medicine, North Carolina State University, 4700 Hillsborough Street, Raleigh, NC 27606, USA

13 DuPont Haskell Laboratory for Health and Environmental Sciences, P.O. Box 50, 1090 Elkton Road, Newark, DE 19714-0050, USA

14 Department of Chemical Engineering, University of Rochester, Gavett Hall 253, Rochester, NY 14627, USA

Conflict of Interest Statement: The author(s) declare that they have no competing interests. Günter Oberdörster served as the Chair of the Nanomaterial Toxicity Screening Working Group. Andrew Maynard served as the Chair of the physiochemical characteristics sub-group, Ken Donaldson served as the Chair of the in vitro testing methods sub-group, and Vincent Castranova served as the Chair of the in vivo assays sub-group. Julie Fitzpatrick managed this project for the ILSI Research Foundation/Risk Science Institute (Table (Table6).6).

Oberdörster, G., Maynard, A., Donaldson, K., Castranova, V., Fitzpatrick, J., Ausman, K., Carter, J., Karn, B., Kreyling, W., Lai, D., Olin, S., Monteiro-Riviere, N., Warheit, D.B., Yang, H., & ILSI Research Foundation/Risk Science Institute Nanomaterial Toxicity Screening Working Group (2005). Principles for characterizing the potential human health effects from exposure to nanomaterials: elements of a screening strategy. *Particle and fibre toxicology*, 2, 8.\_ <a href="https://doi.org/10.1186/1743-8977-2-8">https://doi.org/10.1186/1743-8977-2-8</a>

<u>Applied Nanotoxicology - NCBI - NIH</u> https://www.ncbi.nlm.nih.gov > articles > PMC5370558

by DW Hobson · 2016 · Cited by 23 — Overall, a significantly smaller number of proteins were affected by asbestos and carbon black ... David B. Warheit, Chemours Company, Wilmington, DE, USA.

Authors: David W. Hobson1, Stephen M. Roberts2, Anna A. Shvedova3, David B. Warheit4, Georgia K. Hinkley2, and Robin C. Guy5

#### Affiliations:

- 1 LoneStar PharmTox LLC, Bergheim, TX, USA
- 2 University of Florida, Gainesville, FL, USA
- 3 CDC-National Institute for Occupational Safety and Health, Morgantown, WV, USA
- 4 Chemours Company, Wilmington, DE, USA
- 5 Robin Guy Consulting LLC, Lake Forest, IL, USA



Conflict of Interest Statement: The authors declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Hobson, D. W., Roberts, S. M., Shvedova, A. A., Warheit, D. B., Hinkley, G. K., & Guy, R. C. (2016). Applied Nanotoxicology. *International journal of toxicology*, *35*(1), 5–16. https://doi.org/10.1177/1091581816628484

# 1 June 2021

Mr. Aaron Yeow

Designated Federal Officer

Yeow.aaron@epa.gov

RE: Clean Air Scientific Advisory Committee Appointments

## Dear Mr Yeow:

The undersigned WA State Chapter Sierra Club leaders were overjoyed to learn that Jean Mendoza was been nominated to serve on the USEPA Clean Air Scientific Advisory Committee (CASAC). This is a letter of support for Jean Mendoza's nomination.

Jean is a member in good standing of the Washington State Chapter's Water and Salmon Committee, as well as the National Sierra Club Food and Agriculture Grassroots Network Team. She has given many presentations at our meetings about CAFOs, and has helped advance our Chapter's work on this important issue. She is dauntless in her advocacy to protect the environment and address environmental justice.

Jean would bring needed credentials to the CASAC: nurse, graduate work in public health, presenter to the CDC on PFAS exposure, resident and community activist in the worst air polluted community of Washington State, and Director of Friends of Toppenish Creek which works to protect rural community rights for clean air and water and for improving agriculture in Yakima, Washington. But to us, Jean is a philosopher and educator. Through her superb presentations, she has taught us so much about CAFO impacts and related problems and legislation.

Jean lives in a rural area with a very diverse population -- farmers, farmworkers, Latinos, and Native Americans, Caucasians. She has lobbied local and state agencies and engaged in litigation to improve regulation or oppose many CAFO practices. She has a history of working collaboratively with and bridging the gap between rural people and highly educated experts in diverse settings (community meetings, focus groups, public testimony, and the courts). With her advanced training as a nurse, she is careful with her facts and the science behind them.

Jean Mendoza will be an essential member to the CASAC. We look forward to learning that she has been appointed.

Respectfully submitted:

Elaine Packard, Chair

Sierra Club WA Chapter Water Salmon Committee

Darlene Schanfald

Sierra Club WA Chapter Toxics Committee



June 1, 2021

Mr. Aaron Yeow Designated Federal Officer Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, DC 20460

RE: [FRL-10021-37-OP] Request for Nominations of Candidates to the EPA's Clean Air Scientific Advisory Committee (CASAC) submitted via email to yeow.aaron@epa.gov

Dear Mr. Yeow,

On behalf of the American Academy of Nursing (Academy), we are writing in support of Jessica Castner, PhD, RN-BC, FAEN, FAAN, one of the <u>candidates nominated</u> to the Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC). The Academy serves the public by advancing health policy through the generation, synthesis, and dissemination of nursing knowledge. Academy Fellows are inducted into the organization for their extraordinary contributions to improve health locally and globally. With more than 2,800 Fellows, the Academy represents nursing's most accomplished leaders in policy, research, administration, practice, and academia.

A Fellow of the Academy, Dr. Castner is an active member of our Expert Panel on Environmental and Public Health. Dr. Castner's body of research has been to reduce the risk of environmental and occupational exposures to optimize human health and well-being. Her work on integrating community-based environmental exposures and emergency health outcomes has achieved prominence in the specialty. Her research revolves around four interconnected themes of air pollution, tools for respiratory and environmental exposure monitoring, unscheduled healthcare utilization, and healthy work environments. Dr. Castner's expertise includes asthma, cardiopulmonary outcomes, environmental intolerance symptom clusters, and acute exacerbation of chronic disease.

She is a board-certified emergency nurse, with additional clinical certifications as an Asthma Educator, Trauma Nursing Core Course Provider and Instructor, Emergency Nurse Pediatric Course Provider, and National Institute for Occupational Safety and Health Practical Spirometry. Dr. Castner is an experienced researcher who has authored dozens of articles, studies, editorials and other publications on health care topics of importance to public health, such as the impact of environment on respiratory health.

Dr. Castner would be a valuable addition to the CASAC and the Academy supports her nomination. You can call on our support by connecting with myself or our Senior Director of Policy, Christine Murphy, at <a href="mailto:cmurphy@aannet.org">cmurphy@aannet.org</a>.

Sincerely,

Suzanne Miyamoto, PhD, RN, FAAN

Juanne Mayamot

**Chief Executive Officer** 



PHONE: 404-270-5867

June 1, 2021

Mr. Aaron Yeow
Designated Federal Officer (DFO), Clean Air Scientific Advisory Committee
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460

Re: Invitation for Public Comment on the List of Candidates for EPA's Clean Air Scientific Advisory Committee (CASAC)

Dear Mr. Yeow:

I respectfully submit this comment in support of Dr. Christina Fuller, in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (CASAC). CASAC plays an important role under the Clean Air Act in providing expert advice to EPA that includes reviewing EPA's air quality criteria and national ambient air quality standards developed under Clean Air Act (CAA) sections 108 and 109, as well as providing EPA with other related scientific and technical advice.

For over twenty years, I've worked with low-to-moderate income communities of color in Atlanta Georgia on a range of environmental initiatives that have gained national recognition. Although I am currently affiliated with an academic institution, I also have a unique perspective as a community leader, Vice Chair of the National Environmental Justice Advisory Council (NEJAC), and co-founder of a community-based environmental justice organization, the West Atlanta Watershed Alliance (WAWA). My work with WAWA and engagement with my community has allowed me to engage in a number of community-engaged studies to investigate air and water pollution in the context of cumulative risks and impacts to environmental health. We have also engaged in important policy work around addressing air quality challenges in environmentally-overburdened communities.

I have known and worked with Dr. Fuller for over 10 years as fellow scholar-advocates for environmental justice. As an Associate Professor of Environmental Health at the Georgia State University School of Public Health, Dr. Fuller is highly qualified to serve on the CASAC, and she will be able to credibly provide sound scientific advice to USEPA regarding current and future air quality issues. In addition to her extensive and robust technical expertise in air quality and health, Dr. Fuller will also serve as am important voice for women and people of color--those whose representation has been historically absent or severely under-represented from such bodies. Diversity and inclusion are critically important to the success of CASAC.

Dr. Fuller received her M.S. and Sc.D. degrees in Environmental Health from the Harvard School of Public Health and her B.S. degree in Environmental Engineering from Northwestern University. She has been active in the air pollution field for over 15 years and specializes in human exposure assessment, epidemiology, health disparities and community-based research. Her expertise includes the characterization of criteria air pollutants, as well as

extensive knowledge of ultrafine particles; estimating cardiovascular health effects; documenting disparities and social vulnerabilities; and testing exposure reduction technologies. This expertise can greatly contribute to the effectiveness of the CASAC in making health-focused recommendations to EPA.

Dr. Fuller has served on review panels for the National Institute of Environmental Health Sciences (NIEHS), the Health Effects Institute, and the Natural Environment Research Council (United Kingdom). She is an Editorial Board Member of the International Journal of Environmental Research and Public Health (IJERPH) and is currently editing a special issue for the journal on air pollution within Africa and the African Diaspora.

Dr. Fuller recently released a co-edited book titled *Ambient Combustion Related Ultrafine Particles and Health*, which compiles the state of the science of the very smallest particles. Within the past two years, Dr. Fuller has served as PI of an NIEHS-funded research grant testing the effectiveness of air pollution mitigation through green infrastructure. In addition, she served as PI on a community-engaged research project measuring air pollution near marine ports funded by New York Community Trust/Friends of the Earth. She teaches courses on air pollution, environmental justice and environmental health to both undergraduate and graduate students. Finally, Dr. Fuller is a member of the International Society of Environmental Epidemiologists (ISEE) and its Capacity Building and Education Subcommittee; the International Society of Exposure Science (ISES) and its 2021 Technical Organizing Committee; and the American Public Health Association.

Without hesitation, I give Dr. Christina Fuller my highest recommendation and full support for her nomination to EPA's Clean Air Scientific Advisory Committee. She is an ideal candidate to serve on the CASAC and will contribute significantly to the committee's success in carrying out the charge listed in its charter.

Please feel free to contact me at <a href="mailto:nosborne@spelman.edu">nosborne@spelman.edu</a> should you have additional questions. Thank you, in advance, for your consideration.

Sincerely,

Na'Taki Osborne Jelks, Ph. D., MPH Assistant Professor, Environmental and Health Sciences Spelman College

Vice Chair, National Environmental Justice Advisory Council (NEJAC)

Co-Founder, West Atlanta Watershed Alliance (WAWA)

June 1, 2021

Mr. Aaron Yeow
Designated Federal Officer
Environmental Protection Agency
yeow.aaron@epa.gov

Dear Mr. Yeow,

I responding to the May 10, 2021 Invitation for Public Comment on the List of Candidates For the Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC) (<a href="https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebProjectsCurrentCASAC/ECFB759C17B8624E8">https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebProjectsCurrentCASAC/ECFB759C17B8624E8</a> 52586A1005E1962/\$File/CASAC%20FY22%20LOC-web.pdf).

I am strongly opposed to the March 31, 2021 EPA Administrator's complete purge of the then existing CASAC (https://www.washingtonpost.com/climate-environment/2021/03/31/epa-advisory-panels/). Because of this politically motivated and arbitrary purge, I believe it will be very difficult for any future panel to meet the requirements of the Federal Advisory Committee Act (https://www.gsa.gov/policy-regulations/policy/federal-advisory-committee-management/legislation-and-regulations/the-federal-advisory-committee-act).

I fully support the June 1, 2021 Public Comment submitted by Daren Bakst, Heritage Foundation Senior Research Fellow in Regulatory Policy Studies. In particular, I support his Recommendation: "Restore the CASAC Membership The EPA should undo its decision to remove all CASAC members. If there is an objective and legitimate concern about a specific member, then the agency can take action, consistent with the law. Until then, the agency should wait until terms expire to make any new appointments. This unreasonable and arbitrary purge, at a minimum, gives the appearance that the Administrator simply wants to pick people to provide the 'science' necessary to support his agenda. John Graham, former Chair of the Science Advisory Board (SAB) recently wrote, 'In one fell swoop, the Biden administration team at EPA has put its policy agenda ahead of the principle of scientific integrity. Regretfully, now we are likely to see more of that behavior in the years ahead.'

(<a href="https://www.washingtontimes.com/news/2021/may/25/joe-bidens-purge-at-the-epa/">https://www.washingtontimes.com/news/2021/may/25/joe-bidens-purge-at-the-epa/</a>) While he was referring to the SAB purge, the same argument applies to the CASAC purge."

In addition, I fully support the May 31, 2021 Public Comment submitted by Steve Milloy, Publisher of JunkScience.com. For emphasis, I have reprinted below the full comment that he has posted (<a href="https://junkscience.com/2021/05/milloy-comments-to-epa-on-selection-of-air-quality-science-advisory-board-members/">https://junkscience.com/2021/05/milloy-comments-to-epa-on-selection-of-air-quality-science-advisory-board-members/</a>).

Finally, I want to point out that the CASAC purge is just one example of how American science is being dangerously politicized. On September 7, 2020, 81 Nobel Laureates in physics, chemistry, and medicine endorsed former Vice President Joe Biden, the Democrat candidate for President of the United States (<a href="https://physicsworld.com/a/nobel-laureates-endorse-joe-biden-for-us-president/">https://physicsworld.com/a/nobel-laureates-endorse-joe-biden-for-us-president/</a>). The full list of 81 Nobel Laureates is shown below. Then on April 29, 2021, 124 Nobel Laureates issued an Urgent Call for Action after the National Academies 'Our Planet, Our Future' Summit

(https://www.nationalacademies.org/news/2021/04/nobel-prize-laureates-and-other-experts-issue-urgent-call-for-action-after-our-planet-our-future-summit). These 124 Nobel Laureates include 46 of

the 81 Nobel Laureates who endorsed President Biden. My assessment is that these Nobel Laureates have publicly revealed a strong one-sided political bias toward President Biden and his political agenda. These examples represent strong warning signs of the bleak future for objective, politically neutral science in the United States.

Sincerely yours,

James E. Enstrom, PhD, MPH, FFACE Retired UCLA Research Professor (Epidemiology) President, Scientific Integrity Institute <a href="http://scientificintegrityinstitute.org/jenstrom@ucla.edu">http://scientificintegrityinstitute.org/jenstrom@ucla.edu</a> https://junkscience.com/2021/05/milloy-comments-to-epa-on-selection-of-air-quality-science-advisory-board-members/

May 31, 2021

Mr. Aaron Yeow Designated Federal Officer EPA CASAC

I am submitting comments concerning candidates for CASAC, as <u>requested</u> on May 10, 2021.

I have both general comments related to the panel member selection process and specific comments on candidates.

# In summary:

- Strive for balance and objectivity. The law requires CASAC to be balanced in terms of points of view. Prior to 2017, CASAC had devolved into a system cronyism where CASAC members with nearly identical viewpoints often reviewed and rubberstamped the results of their own or their colleagues' EPA-funded research. There also exists the problem of certain candidates (e.g., individuals who have received tens of millions in EPA research grants) having undue influence over more junior colleagues.
- Avoid financial conflicts of interest. EPA should avoid selecting candidates with a financial relationship with the agency. This principle should exclude those candidates who have received or otherwise benefitted from one or more research grants from EPA within the past five (5) years. Moreover selected candidates should agree in writing to not seek, accept or help their institutions obtain research grants from EPA during the next five (5) years.
- No candidates who have participated or benefitted from unethical or illegal research. A number of the candidates for CASAC have conducted, participated in or have benefitted from affiliation with <u>unethical/illegal human clinical experiments with air pollutants</u>. No one who is associated with these unethical/illegal human experiments should be permitted to serve on CASAC.

While it is impossible to describe and proscribe all forms of potential corruption among CASAC members, EPA should strive to select an ethical and honest panel that represents varying points of view and where no panel member is intimated by others.

# 1. General Comment on Panel Selection

An overall concern is that the new CASAC will not be balanced as is required by law.

The Clean Air Act, 42 U.S.C. § 7409(d)(2) requires that an independent scientific advisory board be named by the Administrator of the EPA which every five years completes a review of the national primary and secondary ambient air quality standards and recommends any new national ambient air quality standards or revisions of existing criteria and standards. Pursuant to this the EPA has created the Clean Air Scientific Advisory Committee (CASAC), and subcommittees beneath the CASAC which deal with particular areas related to air quality such as air monitoring, oxides of nitrogen, sulfur oxides, and particulate matter.

The formation of this mandated committee and these subcommittees falls under the requirements of the Federal Advisory Committee Act (FACA), which imposes requirements upon such bodies, and gives content to the words used to authorize the creation of such committees. FACA specifically notes that any legislation authorizing the creation of an advisory committee or panel shall "contain appropriate provisions to assure that the advice and recommendations of the advisory committee will not be inappropriately influenced by the appointing authority or by any special interest" 5 U.S.C., §5 (3) appx. In the Clean Air Act such a provision is contained through the requirement that the committee being formed and thus and subcommittees being formed beneath it are "independent." 42 U.S.C. § 7409(d)(2)(a).

The Federal Advisory Committee Act also requires that all committee formed "be fairly balanced in terms of the points of view represented." 5 U.S.C., §5 (2) appx. In determining whether a committee is fairly balanced courts look to the purpose of the committee, or as here the panel. "In considering whether a committee is fairly balanced... courts naturally have looked first at the functions to be performed." Cargill, Inc. v. U.S., 173 F.3d 323 (5th Cir.1999). This Court

has stated that "the legislative history makes clear, the "fairly balanced" requirement was designed to ensure that persons or groups directly affected by the work of a particular advisory committee would have some representation on the committee" Washington Legal Foundation v. American Bar Ass'n., 648 F.Supp. 1353 (D.D.C. 1986).

Thus the test for whether a committee or panel is 'fairly balanced' turns on the purpose for the creation of the committee. Here the Clean Air Act speaks to the overall purpose of the CASAC committee. Its job is to review the proposals put forth by the agency under the act and to recommend any new standards or revisions of current standards it deems necessary. 42 U.S.C. § 7409(d)(2)(b). To do so the committee must hold a balanced set of views on the topic by those within the scientific community.

# 2. Comments on Specific Candidates

Below are comments on specific candidates.

# a. EPA Research Grant Recipients

The following candidates have previously received grants from EPA and may be reasonably suspected of being biased toward the agency. The total value of EPA grant money associated with each candidate is in parentheses. **Candidates associated with grants in excess of \$5 million are bolded.** *Candidates associated with grants awarded in the past five years are italicized.* 

Sara Adar (\$34,198,307)

John R. Balmes (\$24,607,626)

Michelle Bell (\$29,214,550)

James Boylan (\$229,770)

Judith Chow (\$449,456)

Jane Clougherty (\$1.549,998)

Deborah Cory-Slechta (\$9,250,000)

Gregory Diette (\$8,883,692)

Charles T. Driscoll (\$7.437,921)

Mark W. Frampton (\$36,197,366)

Terry Gordon (\$29,550,367)

Jack Harkema (\$64,468,114)

Daven Henze (\$1,389,820)

Amy Herring (\$1,139,238)

Jason Hill (\$10,000,000)

Tracey Holloway (\$4,462,625)

Ilona Jaspers (\$9,800,000)

Michael Jaycock (\$749,991)

Joel Kaufman (\$55,420,682)

Howard Kipen (\$6,343,825)

Michael T. Kleinman (\$37,009,432)

Petros Koutrakis (\$38,601,403)

Nicolai Kuminoff (\$194,374)

Brian LaFranchi (\$77,793)

Bruce Lanphear (\$3,714,505)

Monica Mazurek (\$499,150)

V. Faye McNeill (\$799,699)

David Peden (\$9,800,000)

Richard Peltier (\$700,000)

Andrea Polidori (\$749,820)

Jeremy Sarnat (\$21,268,423)

Joel Schwartz (\$45,965,580)

Noelle Selin (\$10,682,118)

Elizabeth (Lianne) A. Sheppard (\$65,543,082)

William Stubblefield (\$449,448)

Helen Suh (\$18,779,788)

George Thurston (\$10,049,512)

Barbara Turpin (\$6,955,783)

Grgeory Wellenius (\$7,747,040)

Jason West (\$1,088,625)

### b. Other comments on specific candidates

The following candidates are unqualified to serve on CASAC for the conduct described.

- Mark Frampton is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g., <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7787/report/2006">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7787/report/2006</a>.
- Jack Harkema is associated with human clinical research involving particulate matter
  that is either unethical or illegal. See e.g.,
  https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/a
  bstract\_id/1087.
- Joel Kaufman is associated with human clinical research involving particulate matter that is either unethical or illegal. See e.g,. <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6241">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6241</a>.
- Michael Kleinman is associated with human clinical research that is unethical or illegal. See e.g., <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/1087">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/1087</a>.
- Petros Koutrakis is associated with human clinical research that is unethical or illegal. See e.g., <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739</a>.
- Joel Schwartz is associated with human clinical research involving particulate matter
  that is unethical or illegal. See e.g.,
  <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739</a>.
- Helen Suh is associated with human clinical research involving particulate matter
  that is unethical or illegal. See e.g.,
  <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/7739</a>.
- Elizabeth Sheppard is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g., <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6239">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6239</a>
- George Thurston is associated with human clinical research involving particulate matter that is unethical or illegal. See e.g., <a href="https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6088">https://cfpub.epa.gov/ncer\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract\_id/6088</a>

If you have any questions about these comments or require more detail please don't hesitate to contact me.

Sincerely,

Steve Milloy Publisher, JunkScience.com

### Nobel Laureates endorse Joe Biden

81 American Nobel Laureates in Physics, Chemistry, and Medicine have signed this letter to express their support for former Vice President Joe Biden in the 2020 election for President of the United States.

At no time in our nation's history has there been a greater need for our leaders to appreciate the value of science in formulating public policy. During his long record of public service, Joe Biden has consistently demonstrated his willingness to listen to experts, his understanding of the value of international collaboration in research, and his respect for the contribution that immigrants make to the intellectual life of our country.

As American citizens and as scientists, we wholeheartedly endorse Joe Biden for President.

Name	Category	Prize Year
Peter Agre	Chemistry	2003
Sidney Altman	Chemistry	1989
Frances H. Arnold	Chemistry	2018
Paul Berg	Chemistry	1980
Thomas R. Cech	Chemistry	1989
Martin Chalfie	Chemistry	2008
	Chemistry	1990
Elias James Corey Joachim Frank		2017
Walter Gilbert	Chemistry	
	Chemistry	1980
John B. Goodenough	Chemistry	2019
Alan Heeger	Chemistry	2000
Dudley R. Herschbach	Chemistry	1986
Roald Hoffmann	Chemistry	1981
Brian K. Kobilka	Chemistry	2012
Roger D. Kornberg	Chemistry	2006
Robert J. Lefkowitz	Chemistry	2012
Roderick MacKinnon	Chemistry	2003
Paul L. Modrich	Chemistry	2015
William E. Moerner	Chemistry	2014
Mario J. Molina	Chemistry	1995
Richard R. Schrock	Chemistry	2005
K. Barry Sharpless	Chemistry	2001
Sir James Fraser Stoddart	Chemistry	2016
M. Stanley Whittingham	Chemistry	2019
James P. Allison	Medicine	2018
Richard Axel	Medicine	2004
David Baltimore	Medicine	1975
J. Michael Bishop	Medicine	1989
Elizabeth H. Blackburn	Medicine	2009

Michael S. Brown	Medicine	1985					
Linda B. Buck	Medicine						
Mario R. Capecchi	Medicine	2007			И		
Edmond H. Fischer	Medicine	1000					
Joseph L. Goldstein	Medicine						
Carol W. Greider	Medicine	2009					
	Medicine	2009					
Jeffrey Connor Hall Leland H. Hartwell	Medicine						
H. Robert Horvitz	Medicine						
Louis J. Ignarro	Medicine						
William G. Kaelin Jr.	Medicine	1//0	along the second of the base of the second o				
Eric R. Kandel		2017					
	Medicine	2000	700				
Craig C. Mello John O'Keefe	Medicine	2006					
	Medicine	2014					
Michael Rosbash James E. Rothman	Medicine	2017					
	Medicine	2013			Name		
Randy W. Schekman	Medicine	2013					
Gregg L. Semenza	Medicine	2019					
Hamilton O. Smith	Medicine	1978					
Thomas C. Sudhof	Medicine	2013					
Jack W. Szostak	Medicine	2009					
Susumu Tonegawa	Medicine	1987					
Harold E. Varmus	Medicine	1989					
Eric F. Wieschaus	Medicine	1995					
Torsten N. Wiesel	Medicine	1981			Walter Gilbert		
Michael W. Young	Medicine	2017			John B. Goodenough		
Barry Clark Barish	Physics	2017					
Steven Chu	Physics	1997					
Jerome I. Friedman	Physics	1990					
Sheldon Glashow	Physics	1979					
David J. Gross	Physics	2004					
John L. Hall	Physics	2005					
Wolfgang Ketterle	Physics	2001					
J. Michael Kosterlitz	Physics	2016			Paul L. Modrich		
Herbert Kroemer	Physics	2000					
Robert B. Laughlin	Physics	1998		Chomistry			
Anthony J. Leggett	Physics	2003	2005				
John C. Mather	Physics	2006					
Shuji Nakamura	Physics	2014					
Douglas D. Osheroff	Physics	1996					
James Peebles	Physics	2019					
Arno Penzias	Physics	1978					
Saul Perlmutter	Physics	2011					
H. David Politzer	Physics	2004					
		*					

Brian P. Schmidt	Physics	2011	
Joseph H. Taylor Jr.	Physics	1993	
Kip Stephen Thorne	Physics	2017	
Daniel C. Tsui	Physics	1998	
Rainer Weiss	Physics	2017	
Frank Wilczek	Physics	2004	
Robert Woodrow Wilson	n Physics	1978	
David J. Wineland	Physics	2012	

https://www.nationalacademies.org/news/2021/04/nobel-prize-laureates-and-other-experts-issue-urgent-call-for-action-after-our-planet-our-future-summit

## Nobel Prize Laureates and Other Experts Issue Urgent Call for Action After 'Our Planet, Our Future' Summit

Statement | April 29, 2021

## **Our Planet, Our Future**

### **An Urgent Call for Action**

This statement was inspired by the discussions at the <u>2021 Nobel Prize Summit</u>, issued by the Steering Committee and co-signed by Nobel Laureates and experts.

### **Preamble**

The Nobel Prizes were created to honor advances of "the greatest benefit to humankind." They celebrate successes that have helped build a safe, prosperous, and peaceful world, the foundation of which is scientific reason.

"Science is at the base of all the progress that lightens the burden of life and lessens its suffering." Marie Curie (Nobel Laureate 1903 and 1911)

Science is a global common good on a quest for truth, knowledge, and innovation toward a better life. Now, humankind faces new challenges at unprecedented scale. The first Nobel Prize Summit comes amid a global pandemic, amid a crisis of inequality, amid an ecological crisis, amid a climate crisis, and amid an information crisis. These supranational crises are interlinked and threaten the enormous gains we have made in human progress. It is particularly concerning that the parts of the world projected to experience many of the compounding negative effects from global changes are also home to many of the world's poorest communities, and to indigenous peoples. The summit also comes amid unprecedented urbanization rates and on the cusp of technological disruption from digitalization, artificial intelligence, ubiquitous sensing and biotechnology and nanotechnology that may transform all aspects of our lives in coming decades.

"We have never had to deal with problems of the scale facing today's globally interconnected society. No one knows for sure what will work, so it is important to build a system that can evolve and adapt rapidly." Elinor Ostrom (Nobel Laureate 2009)

The summit has been convened to promote a transformation to global sustainability for human prosperity and equity. Time is the natural resource in shortest supply. The next decade is crucial: Global greenhouse gas emissions need to be cut by half and destruction of nature halted and reversed. An essential foundation for this transformation is to address destabilizing inequalities in the world. Without transformational action this decade, humanity is taking colossal risks with our common future. Societies risk large-scale, irreversible changes to Earth's biosphere and our lives as part of it.

"A new type of thinking is essential if mankind is to survive and move toward higher levels." Albert Einstein (Nobel Laureate 1921)

We need to reinvent our relationship with planet Earth. The future of all life on this planet, humans and our societies included, requires us to become effective stewards of the global commons — the climate, ice, land, ocean, freshwater, forests, soils, and rich diversity of life that regulate the state of the planet, and combine to create a unique and harmonious life-support system. There is now an existential need to build economies and societies that support Earth system harmony rather than disrupt it.

### **Our Planet**

"It seems appropriate to assign the term 'Anthropocene' to the present." Paul Crutzen (Nobel Laureate 1995)

Geologists call the last 12,000 years the Holocene epoch. A remarkable feature of this period has been relative Earth-system stability. But the stability of the Holocene is behind us now. Human societies are now the prime driver of change in Earth's living sphere — the biosphere. The fate of the biosphere and human societies embedded within it is now deeply intertwined and evolving together. Earth has entered a new geological epoch, the Anthropocene. Evidence points to the 1950s as the onset of the Anthropocene — a single human lifetime ago. The Anthropocene epoch is more likely to be characterized by speed, scale, and shock at global levels.

### Planetary health

The health of nature, our planet, and people is tightly connected. Pandemic risk is one of many global health risks in the Anthropocene. The risks of pandemics are now greater due to destruction of natural habitats, highly networked societies, and misinformation.

The COVID-19 pandemic is the greatest global shock since the Second World War. It has caused immense suffering and hardship. The scientific response in the face of catastrophe, from detection to vaccine development, has been robust and effective. There is much to applaud. However, there have been clear failings. The poorest and most marginalized in societies remain

the most vulnerable. The scale of this catastrophe could have been greatly reduced through preventive measures, greater openness, early detection systems, and faster emergency responses.

Reducing risk of zoonotic disease like COVID-19 requires a multi-pronged approach recognizing "one health" — the intimate connections between human health and the health of other animals and the environment. Rapid urbanization, agricultural intensification, overexploitation, and habitat loss of large wildlife all promote the abundance of small mammals, such as rodents. Additionally, these land-use changes lead animals to shift their activities from natural ecosystems to farmlands, urban parks, and other human-dominated areas, greatly increasing contact with people and the risk of disease transmission.

### The global commons

Global heating and habitat loss amount to nothing less than a vast and uncontrolled experiment on Earth's life-support system. Multiple lines of evidence now show that, for the first time in our existence, our actions are destabilizing critical parts of the Earth system that determine the state of the planet.

For 3 million years, global mean temperature increases have not exceeded 2°C of global warming, yet that is what is in prospect within this century. We are on a path that has taken us to 1.2°C warming so far — the warmest temperature on Earth since we left the last ice age some 20,000 years ago, and which will take us to >3°C warming in 80 years.

At the same time, we are losing Earth resilience, having transformed half of Earth's land outside of the ice sheets, largely through farming expansion. Of an estimated 8 million species on Earth, about 1 million are under threat. Since the 1970s, there has been an estimated 68% decline in the populations of vertebrate species.

### **Inequality**

"The only sustainable prosperity is shared prosperity." Joseph Stiglitz (Nobel Laureate 2001)

While all in societies contribute to economic growth, the wealthy in most societies disproportionately take the largest share of this growing wealth. This trend has become more pronounced in recent decades. In highly unequal societies, with wide disparities in areas such as health care and education, the poorest are more likely to remain trapped in poverty across several generations.

More equal societies tend to score highly on metrics of well-being and happiness. Reducing inequality raises social capital. There is a greater sense of community and more trust in government. These factors make it easier to make collective, long-term decisions. Humanity's future depends on the ability to make long-term, collective decisions to navigate the Anthropocene.

The COVID-19 pandemic, the largest economic calamity since the Great Depression, is expected to worsen inequality at a moment when inequality is having a clear destabilizing political impact

in many countries. Climate change is expected to further exacerbate inequality. Already, the poorest, often living in vulnerable communities, are hit hardest by the impacts of climate, and live with the damaging health impacts of energy systems, for example air pollution. Furthermore, although urbanization has brought many societal benefits, it is also exacerbating existing, and creating new, inequities.

It is an inescapable conclusion that inequality and global sustainability challenges are deeply linked. Reducing inequality will positively impact collective decision-making.

### **Technology**

The accelerating technological revolution — including information technology, artificial intelligence, and synthetic biology — will impact inequality, jobs, and entire economies, with disruptive consequences. On aggregate, technological advancements so far have accelerated us down the path toward destabilizing the planet. Without guidance, technological evolution is unlikely to lead to transformations toward sustainability. It will be critical to guide the technological revolution deliberately and strategically in the coming decades to support societal goals.

### Acknowledging urgency and embracing complexity

The future habitability of Earth for human societies depends on the collective actions humanity takes now. There is rising evidence that this is a decisive decade (2020-2030). Loss of nature must be stopped and deep inequality counteracted. Global emissions of greenhouse gases need to be cut by half in the decade of 2021-2030. This alone requires collective governance of the global commons — all the living and non-living systems on Earth that societies use but that also regulate the state of the planet — for the sake of all people in the future.

On top of the urgency, we must embrace complexity. Humanity faces rising network risks and cascading risks as human and technological networks grow. The 2020/2021 pandemic was a health shock that quickly cascaded into economic shocks. We must recognize that surprise is the new normal and manage for complexity and emergent behavior.

### **Our Future**

#### A decade of action

Time is running out to prevent irreversible changes. Ice sheets are approaching tipping points — parts of the Antarctic ice sheet may have already crossed irreversible tipping points. The circulation of heat in the North Atlantic is unequivocally slowing down due to accelerated ice melt. This may further affect monsoons and the stability of major parts of Antarctica. Rainforests, permafrost, and coral reefs are also approaching tipping points. The remaining carbon budget for a 67% probability of not exceeding 1.5°C global warming will be exhausted before 2030. At the same time, every week until 2050, the urban population will increase by about 1.3 million, requiring new buildings and roads, water and sanitation facilities, and energy

and transport systems. The construction and operation of these infrastructure projects will be energy and emissions intensive unless major changes are made in how they are designed and implemented.

In 2021, major summits will generate political and societal momentum for action on climate, biodiversity, food systems, desertification, and the ocean. In 2022, the Stockholm+50 event marks the 50th anniversary of the first Earth Summit. This is an important opportunity to reflect on progress to meet the United Nations Sustainable Development Goals (SDGs), due to be completed by 2030. Yet a disconnect exists between the urgency indicated by the empirical evidence and the response from electoral politics: The world is turning too slowly.

### Planetary stewardship

"We must break down the walls that have previously kept science and the public apart and that have encouraged distrust and ignorance to spread unchecked. If anything prevents human beings from rising to the current challenge, it will be these barriers." Jennifer Doudna (Nobel Laureate 2020)

Effective planetary stewardship requires updating our Holocene mindset. We must act on the urgency, the scale, and the interconnectivity between us and our home, planet Earth. More than anything, planetary stewardship will be facilitated by enhancing social capital — building trust within societies and between societies.

Is a new worldview possible? 193 nations have adopted the SDGs. The global pandemic has contributed to a broader recognition of global interconnectivity, fragility, and risk. Where they possess the economic power to do so, more people are increasingly making more sustainable choices regarding transportation, consumption, and energy. They are often ahead of their governments. And increasingly, the sustainable options, for example solar and wind power, are similar in price to fossil fuel alternatives or cheaper — and getting cheaper.

The question at a global systems level today is not whether humanity will transition away from fossil fuels. The question is: Will we do it fast enough? Solutions, from electric mobility to zero-carbon energy carriers and sustainable food systems, are today often following exponential curves of advancement and adoption. How do we lock this in? The following seven proposals provide a foundation for effective planetary stewardship.

- POLICY: Complement GDP as a metric of economic success with measures of true wellbeing of people and nature. Recognize that increasing disparities between rich and poor feed resentment and distrust, undermining the social contract necessary for difficult, long-term collective decision-making. Recognize that the deteriorating resilience of ecosystems undermines the future of humanity on Earth.
- MISSION-DRIVEN INNOVATION: Economic dynamism is needed for rapid transformation. Governments have been at the forefront of funding transformational innovation in the last 100 years. The scale of today's challenges will require large-scale collaboration between researchers, government, and business with a focus on global sustainability.

- EDUCATION: Education at all ages should include a strong emphasis on the nature of
  evidence, the scientific method, and scientific consensus to ensure future populations
  have the grounding necessary to drive political and economic change. Universities
  should embed concepts of planetary stewardship in all curricula as a matter of urgency.
  In a transformative, turbulent century, we should invest in life-long learning, and factbased worldviews.
- INFORMATION TECHNOLOGY: Special interest groups and highly partisan media can
  amplify misinformation and accelerate its spread through social media and other digital
  means of communication. In this way, these technologies can be deployed to frustrate a
  common purpose and erode public trust. Societies must urgently act to counter the
  industrialization of misinformation and find ways to enhance global communication
  systems in the service of sustainable futures.
- FINANCE AND BUSINESS: Investors and companies must adopt principles of recirculation and regeneration of materials and apply science-based targets for all global commons and essential ecosystem services. Economic, environmental, and social externalities should be fairly priced.
- SCIENTIFIC COLLABORATION: Greater investment is needed in international networks of scientific institutions to allow sustained collaboration on interdisciplinary science for global sustainability as well as transdisciplinary science that integrates diverse knowledge systems, including local, indigenous, and traditional knowledge.
- KNOWLEDGE: The pandemic has demonstrated the value of basic research to policymakers and the public. Commitment to sustained investment in basic research is essential. In addition, we must develop new business models for the free sharing of all scientific knowledge.

### **Conclusion**

Global sustainability offers the only viable path to human safety, equity, health, and progress. Humanity is waking up late to the challenges and opportunities of active planetary stewardship. But we *are* waking up. Long-term, scientifically based decision-making is always at a disadvantage in the contest with the needs of the present. Politicians and scientists must work together to bridge the divide between expert evidence, short-term politics, and the survival of all life on this planet in the Anthropocene epoch. The long-term potential of humanity depends upon our ability today to value our common future. Ultimately, this means valuing the resilience of societies and the resilience of Earth's biosphere.

## **Signatures [Only Nobel Laureates Shown]**

Brian Schmidt,\* Australian National University

William E. Moerner,\* Stanford University

William E. Moerner Chemistry 2014

Linda Buck,\* Fred Hutchinson Cancer Research Center

Linda B. Buck Medicine 2004

Elizabeth H. Blackburn,\* University of California, San Francisco

Elizabeth H. Blackburn Medicine 2009

Peter Agre,\* John Hopkins Bloomberg School of Public Health

Peter Agre Chemistry 2003

Klaus von Klitzing,\* Max Planck Institute

Frances Arnold,\* Caltech

Frances H. Arnold Chemistry 2018

Charles Rice,\* The Rockefeller University

Oliver Hart,\* Harvard University

Jacques Dubochet,\* Lausanne University

Rainer Weiss,\* Massachusetts Institute of Technology

Joseph Stiglitz,\* Columbia University

Sir Richard Roberts,\* New England Biolabs

Sir Paul Nurse,\* The Francis Crick Institute

Yuan T. Lee,\* Academia Sinica

Jennifer Doudna,\* University of California, Berkeley

Martin Chalfie,\* Columbia University

Martin Chalfie Chemistry 2008

Aaron Ciechanover,\* Technion Israel Institue of Technology

Joachim Frank,\* Columbia University

Joachim Frank Chemistry 2017

Avram Hershko,\* Technion Israel Institute of Technology

Roald Hoffmann,\* Cornell University

Roald Hoffmann Chemistry 1981

Michael Levitt,\* Stanford University

Stanley Whittingham,\* Binghamton University

M. Stanley Whittingham Chemistr 2019

Paul R. Milgrom,\* Stanford University

Edmund S. Phelps,\* Columbia University, University of Pennsylvania

Francoise Barre-Sinoussi,\* Institut Pasteur

Andrew Fire,\* Stanford University

Carol Greider,\* University of California, Santa Cruz

Carol W. Greider Medicine 2009

Jeffrey Hall,\* Brandeis University, University of Maine

Jeffrey Connor Hall Medicine 2017

Michael Houghton,\* University of Alberta

Tim Hunt,\* Okinawa Institute of Science and Technology Graduate University

Michael Rosbash,\* Brandeis University, Howard Hughes Medical Institute

Michael Rosbash Medicine 2017

Jack Szostak,\* Harvard Medical School, Howard Hughes Medical Institute

Jack W. Szostak Medicine 2009

Eric Wieschaus,\* Princeton University

Eric F. Wieschaus Medicine 1995

Oscar Arias Sanchez,\* Nobel Peace Prize 1987

Barry Barish,\* California Institute of Technology

Barry Clark Barish Physics 2017

Sheldon Glashow,\* Harvard University, Boston University

Sheldon Glashow Physics 1979

David Gross,\* University of California, Santa Barbara

David J. Gross Physics 2004

Takaaki Kajita,\* Tokyo University

John Mather,\* University of Maryland, NASA Goddard Space Flight Centre

John C. Mather Physics 2006 Arthur McDonald,\* Queen's University

William D. Phillips,\* University of Maryland, National Institute of Standards and Technology

H. David Politzer,\* California Institute of Technology

H. David Politzer Physics 2004

Donna Strickland,\* University of Waterloo

Carl E. Wieman,\* Stanford University

Paul Berg,\* Stanford University

Paul Berg Chemistry 1980

Robert Curl Jr.,\* Rice University

Gerhard Ertl,\* Fritz-Haber-Institute der Max-Planck-Gesellschaft

Dudley Herschbach,\* Harvard University, Texas A&M University

Dudley R. Herschbach Chemistry 1986

Robert Huber,\* Max Planck Institute

Tomas Lindahl,\* Francis Crick Institute

Roderick MacKinnon,\* The Rockefeller University

Roderick MacKinnon Chemistry 2003

Hartmut Michel,\* Max Planck Institute

Jean-Pierre Sauvage,\* University of Strasbourg

Richard Schrock,\* Massachussets Institute of Technology

Richard R. Schrock Chemistry 2005

George Smith,\* University of Missouri

Sir John Walker,\* University of Cambridge

Finn Kydland,\* University of California, Santa Barbara

Elfriede Jelinek,\* Nobel Prize in Literature 2004

Alice Munro,\* Nobel Prize in Literature 2013

Wole Soyinka,\* Nobel Prize in Literature 1986

Mario Capecchi,\* University of Utah

Mario R. Capecchi Medicine 2007

Leland Hartwell,\* Arizona State University

Leland H. Hartwell Medicine 2001

Tasuku Honjo,\* Kyoto University

Louis Ignarro,\* University of California, Los Angeles

Louis J. Ignarro Medicine 1998

William Kaelin Jr.,\* Harvard Medical School, Howard Huges Medical Institute

William G. Kaelin Jr. Medicine 2019

Barry Marshall,\* University of Western Australia

John O'Keefe,\* University College London

John O'Keefe Medicine 2014

Gregg Semenza,\* Johns Hopkins School of Medicine

Gregg L. Semenza Medicine 2019

J. Robin Warren,\* Royal Perth Hospital

Torsten Wiesel,\* The Rockefeller University

Torsten N. Wiesel Medicine 1981

Mairead Corrigan-Maguire,\* Nobel Peace Prize 1976

Shirin Ebadi,\* Nobel Peace Prize 2003

Mohamed ElBaradei,\* Nobel Peace Prize 2005

Jose Ramos-Horta,\* Nobel Peace Prize 1996

Jody Williams,\* Nobel Peace Prize 1997

Jerome Friedman,\* Massachusetts Institute of Technology

Jerome I. Friedman Physics 1990

Serge Haroche,\* College de France

Brian Josephson,\* University of Cambridge

Michel Mayor,\* University of Geneva

Gerard Mourou,\* University of Michigan

Horst Stormer,\* Columbia University

Daniel C. Tsui,\* Princeton University

Carl Wieman,\* Stanford University

Robert Woodrow Wilson,\* Harvard-Smithsonian Center for Astrophysics

Hamilton Smith,\* J. Craig Venter Institute

Hamilton O. Smith Medicine 1978

David Wineland,\* University of Oregon, National Institute of Standards and Technology

Bengt Holmstrom,\* Massachusetts Institute of Technology

Thomas Cech,\* University of Colorado, Boulder

Thomas R. Cech Chemistry 1989

Brian Kobilka,\* Stanford University

Brian K. Kobilka Chemistry 2012

Harvey Alter,\* National Institutes of Health

William Campbell,\* Drew University

Johann Deisenhofer,\* University of Texas Southwestern Medical Center

Peter C. Doherty,\* University of Melbourne

J. Michael Bishop,\* University of California, San Francisco

J. Michael Bishop Medicine 1989

Juan Manuel Santos,\* Nobel Peace Prize 2016

Tawakkol Karman,\* Nobel Peace Prize 2011

Georg Bednorz,\* IBM Zurich Research Laboratory

Eric Maskin,\* Harvard University

Sir Fraser Stoddart,\* Northwestern University

Sir James Fraser Stoddart Chemistry 2016

John Hall,\* University of Colorado

John L. Hall Physics 2005

Muhammad Yunus,\* Nobel Peace Prize 2006

Christopher A. Pissarides,\* London School of Economics

Walter Gilbert,\* Harvard University

Walter Gilbert Chemistry 1980

Richard Henderson,\* MRC Laboratory of Molecular Biology

Roger Kornberg,\* Stanford University

Roger D. Kornberg Chemistry 2006

Robert Lefkowitz,\* Duke University

Robert J. Lefkowitz Chemistry 2012

Paul Modrich,\* Duke University

Paul L. Modrich Chemistry 2015

Daniel McFadden,\* University of Southern California

Sir John Gurdon,\* The Gurdon Institute, University of Cambridge

H. Robert Horvitz,\* Massachusetts Institute of Technology

H. Robert Horvitz Medicine 2002

Edvard Moser,\* Norwegian University of Science and Technology

May-Britt Moser,\* Norwegian University of Science and Technology

Ferid Murad,\* The George Washington University

Carlos Filipe Ximenes Belo,\* Nobel Peace Prize 1996

Leymah Gbowee,\* Nobel Peace Prize 2011

Hiroshi Amano,\* Nagoya University

Steven Chu,\* Stanford University

Steven Chu Physics 1997

Wolfgang Ketterle,\* Massachusetts Institute of Technology

Wolfgang Ketterle Physics 2001

Konstantin Novoselov,\* National University of Singapore

James Peebles,\* Princeton University

James Peebles Physics 2019

Adam Riess,\* Johns Hopkins University

Joseph H. Taylor Jr.,\* Princeton University

Eric R. Kandel,\* Columbia University

Eric R. Kandel Medicine 2000

Nobel Laureates who signed the September 1, 2020 endorsement of President Joe Biden are shown twice

#### **Contact:**

Office of News and Public Information 202-334-2138; e-mail news@nas.edu

<sup>\*</sup>Nobel Laureates

## RECOMMENDATION OF DR. CHRISTINA HEMPHILL FULLER FOR MEMBERSHIP ON THE USEPA CLEAN AIR SCIENTIFIC ADVISORY COMMITTEE

I would like to offer my strong recommendation in support of the appointment of Dr. Christina Hemphill Fuller to the USEPA Clean Air Scientific Advisory Committee.

I served as a CAA, CWA, RCRA, CERCLA, EPCRA attorney and senior manager with USEPA Region 4 for 28 years and as an adjunct environmental law professor at Spelman College in Atlanta for 12 years and am now retired. I have had the pleasure of serving with Dr. Fuller on the Board of Directors for Environmental Community Action, a long established grassroots community organization in the state of Georgia, and of guest lecturing her undergraduate class on environmental justice.

Dr. Fuller, a graduate of both Northwestern University and Harvard University School of Public Health, is an extremely intelligent, technically qualified, committed professional who brings the added benefit of the much needed perspective of women and underserved communities to the table. Her expertise includes criteria air pollutant characterization and PM 2.5, as well as epidemiology and a specialization in health disparities caused by exposure to air pollution.

Dr. Fuller co-edited *Ambient Combustion Related Ultrafine Particles and Health*, on small particle science. She serves on the Editorial Board of the *International Journal of Environmental Research and Public Health* and is editing a special issue of that periodical on air pollution in Africa and the African Diaspora.

Dr. Fuller has served on air research grant projects and on review panels for the National Institute of Environmental Health Sciences (NIEHS), the UK Health Effects Institute and the Natural Environment Research Council. She also is a member of a number of health and environment professional organizations.

Dr. Christina Hemphill Fuller is an imminently qualified environmental health expert who would be a tremendous asset to the USEPA Clean Air Scientific Advisory Committee. I recommend her without reservation.

Please feel free to contact me if you have any questions.

Jewell A. Harper





May 26, 2021

Mr. Aaron Yeow
Designated Federal Officer
United States Environmental Protection Agency
yeow.aaron@epa.gov

Re: Nomination of Dr. Matthew Pace to the Clean Air Scientific Advisory Committee

Dear Mr. Yeow,

I am writing to support the nomination and potential appointment of Dr. Matthew Pace to serve on the Clean Air Science Advisory Committee (CASAC).

The Maricopa County Air Quality Department (MCAQD), which serves the Phoenix metropolitan area and large expanses of rural Arizona, is the largest of the three local air pollution control agencies in Arizona. While the local agencies have original jurisdiction over basic Clean Air Act programs, Arizona Department of Environmental Quality (ADEQ) has many responsibilities that affect and support the local agencies, including control of mobile sources, specialized ambient monitoring (NATTS, NCORE, PAMS, and visibility) and pollution forecasting. As such, they are an important partner for MCAQD.

Beginning early in his tenure with ADEQ, MCAQD has worked with Dr. Pace on almost all matters relating to forecasting, tracking and understanding air pollution within the greater Phoenix area and Maricopa County. Besides being a good partner, he brings a wealth of expertise and knowledge to the table, all of which has supported MCAQD's efforts to assess and understand the nature and extent of air pollution in our County.

We strongly support Dr. Pace's nomination to the CASAC. His depth and breadth of knowledge about atmospheric chemistry and physics, understanding of the unique air pollution issues and phenomena of the Southwest, and perspectives as a state agency representative will enrich the CASAC and assist EPA with making well informed decisions on both clean air science and policy. If you have any questions, please feel free to contact me at (602) 506-6701 or <a href="mailto:philip.mcneely@maricopa.gov">philip.mcneely@maricopa.gov</a>.

Sincerely,

Philip A. McNeely, R.G.

Director



# EPN Comments on the List of Candidates for the Environmental Protection Agency's Clean Air Scientific Advisory Committee (CASAC)

May 29, 2021

The <u>Environmental Protection Network</u> (EPN) is an organization of almost 550 U.S. Environmental Protection Agency (EPA) alumni volunteering their time to protect the integrity of EPA, human health, and the environment. These comments reflect EPN members with extensive experience with National Ambient Air Quality Standards (NAAQS) reviews and working with CASAC and pollutant-specific expert panels.

#### Overview:

EPN's comments discuss important factors that EPA should consider in the selection of the seven-member CASAC committee. High-quality, independent science reviews are essential for EPA to protect human health and the environment and for restoring the scientific credibility of the agency. Given the complexities and multidisciplinary attributes of all criteria pollutant reviews, we also stress the critical need to reinstate the use of pollutant-specific expert panels to advise the CASAC in all NAAQS reviews.

#### Comments:

Section 109 of the Clean Air Act specifies that CASAC consist of seven members with at least one each of the following three categories: a member of the National Academy of Sciences, a physician, and a person representing State air pollution control agencies. This committee is required to conduct periodic reviews of the scientific criteria supporting NAAQS as well as the standards themselves, making recommendations to the Administrator on new or revised standards. These core duties, as well as additional requirements for the committee in section 109, clearly indicate that all members must have strong scientific and technical credentials in the most critical disciplines that drive such NAAQS reviews.

In calling for nominations, the Science Advisory Board (SAB) staff called for experts in nine disciplines: air quality, biostatistics, ecology, environmental engineering, epidemiology, exposure assessment, medicine, risk assessment, and toxicology. EPA's call is consistent with the emphasis that most NAAQS reviews have given to assessing critical areas of science in setting primary standards. In addition, it makes clear that not all disciplines that are important in reviews of primary and secondary NAAQS can be represented on the seven-member CASAC.

The numerous and obvious deficiencies in the recent reviews of the particulate matter and ozone standards, with respect to significant gaps in expertise and changes in process, illustrate the need to restore the review process consistent with previous well-tested and validated practices. The highest priority should be placed on reinstating the use of pollutant-specific expert panels for all NAAQS reviews. For decades, these panels have successfully worked closely with CASAC to provide needed scientific expertise for the standards under review, as well as a broader set of perspectives on the science and standards. While the specific expertise needed on such panels will vary by pollutant, in general, they should include criteria used to select CASAC members. Consistent with well-established and validated past practices, the review of conflicts of interestfor new members should be restored to the priority that it has been traditionally given. The recent restriction on

qualified academic researchers in favor of consultants and government employees was unwise, illegal, and significantly compromised the credibility of subsequent reviews.

While EPN is not recommending specific candidates from the list of 100 applicants, we do propose the following criteria EPA should consider in selecting CASAC members as well as members of the pollutant-specific panels. These include:

- 1) **Strong scientific expertise and experience** thereby ensuring that only the best scientists from academia, industry, and the private sector are rigorously vetted for conflicts of interest.
- 2) Specific expertise needs for CASAC Based on our experience in NAAQS reviews, we see a particular need that the committee itself include expertise in epidemiology, human clinical studies, statistics, toxicology, air quality (modeling, exposure, monitoring), and ecology. Individuals with significant experience in more than one discipline, e.g., epidemiology and human clinical studies, are of particular interest.
- 3) Continuity and efficiency of operation To restore continuity and efficient operation of a new CASAC, it is important to include individuals from CASAC and/or pollutant panels over the last decade who are familiar with the process, including interaction between the committee and the panel. Equally important is to include an individual with proven leadership skills to lead the panel. Among candidates not familiar with the CASAC process, preference should be given to those who have previously served on multidisciplinary committees involved in developing a scientific consensus on issues pertinent to a decision by a federal, state, or local governmental entity.
- 4) **Diversity** The planned reconstituted committee provides a unique opportunity to address gender and racial diversity in selecting new CASAC members. EPA should also consider that the generally much larger group of experts in each of the pollutant-specificpanels provide a significant opportunity to address this need.

In examining the list of 100 candidates, we see a number of highly qualified candidates with the expertise, leadership, credibility, and experience needed to ensure continuity and high-quality credible reviews and recommendations required of the CASAC. EPA will, however, need to consider additional candidates to provide the breadth of expertise, experience, perspectives, and diversity needed for pollutant-specific panels to support upcoming NAAQS reviews.

Thank you for the opportunity to provide these comments.

Comments submitted on behalf of EPN and prepared by EPN members John Bachmann (former Associate Director for Science/Policy and New Programs, EPA Office of Air Quality Planning and Standards), Dan Costa (former National Program Director, Air, Climate, and Energy Research Program, EPA Office of Research and Development), Bernard Goldstein (former Chair, EPA Clean Air Scientific Advisory Committee and Assistant Administrator, EPA Office of Research and Development), and Chris Zarba (former Director, EPA Science Advisory Board).



June 1, 2021

Mr. Aaron Yeow Designated Federal Officer, Clean Air Scientific Advisory Committee U.S. Environmental Protection Agency 1300 Pennsylvania Ave NW Washington, DC 20460

Via Email: yeow.aaron@epa.gov

Subject: Invitation for Public Comment on the List of Candidates for the U.S. Environmental Protection Agency's (EPA) Clean Air Scientific Advisory Committee (CASAC)

#### Mr. Yeow:

The Association of Air Pollution Control Agencies (AAPCA)¹ appreciates U.S. EPA's request for public input on the list of candidates for service on the Agency's chartered CASAC.² In previous comments on candidate lists for CASAC, AAPCA has stressed state environmental agency membership and geographic diversity as important factors in meeting the Committee's Charter³ and Membership Balance Plan.⁴ AAPCA recommends that U.S. EPA's Science Advisory Board (SAB) Staff Office consider experts from state and local agencies in the current chartered CASAC selection process.

On U.S. EPA's list of qualified candidates are officials from several state and local air quality programs.<sup>5</sup> These candidates have demonstrated high levels of competence, knowledge, and expertise in fields relevant to air pollution and air quality issues, with impressive backgrounds in meteorology, chemical and environmental engineering, modeling, and toxicology. As agency experts, these candidates are well-versed in the technical aspects of National Ambient Air Quality Standards (NAAQS), and would bring vital, on-the-ground experience to the scientific review process.

Among the "Selection Criteria for CASAC" detailed in the *Federal Register* notice calling for nominations, U.S. EPA states that nominees should have "Demonstrated scientific credentials and disciplinary expertise in relevant fields" and "Background and experiences that ... contribute to the diversity of perspectives," and "For the committee as a whole, consideration of the collective breadth and depth of scientific expertise; and a balance of scientific perspectives is important." Further, CASAC's charter and the federal Clean Air Act direct EPA to appoint "at least one member of the National Academy of Sciences, one physician, and one person representing state air pollution control

<sup>&</sup>lt;sup>1</sup> AAPCA is a national, non-profit, consensus-driven organization focused on assisting state and local air quality agencies and personnel with implementation and technical issues associated with the federal Clean Air Act. AAPCA represents 48 state and local air pollution control agencies, and senior officials from 22 state environmental agencies sit on the AAPCA Board of Directors. AAPCA is housed in Lexington, Kentucky as an affiliate of The Council of State Governments. More information on AAPCA can be found at: www.cleanairact.org.

<sup>&</sup>lt;sup>2</sup> U.S. EPA Science Advisory Board Staff Office, "<u>Invitation for Public Comment on the List of Candidates For the Environmental Protection Agency's Clean Air Scientific Advisory Committee," May 10, 2021.</u>

<sup>&</sup>lt;sup>3</sup> CASAC Charter (renewed 6/5/2019).

<sup>&</sup>lt;sup>4</sup> CASAC 2019 Membership Balance Plan, March 21, 2019.

<sup>&</sup>lt;sup>5</sup> Three candidates are from the following AAPCA member agencies: Arizona Department of Environmental Quality; Georgia Environmental Protection Division; and, Texas Commission on Environmental Quality.

<sup>&</sup>lt;sup>6</sup> 86 FR 17146 – 17147.



agencies."<sup>7</sup> And CASAC's current Membership Balance Plan states that "Geographic location may be considered" the only other balance factor that "EPA identifies as important in achieving a balanced [Federal Advisory Committee]."<sup>8</sup>

With U.S. EPA currently reconstituting the full chartered CASAC, strong consideration should be given to candidates that best help meet the directives for CASAC composition as well as assist the Committee in undertaking the responsibilities set forth in the Clean Air Act. In selecting a geographically diverse membership with experts from state and local agencies to meet these statutory and federal requirements, the Agency would receive key technical and scientific insight that would improve the review and input process. AAPCA not only recommends the selection of state and local candidates to the CASAC, but encourages the SAB Staff Office to work toward exceeding specifications of *at least* one person from a state air pollution control agency as a method for meeting calls for broader geographic perspectives.

Thank you for the opportunity to provide input on U.S. EPA's remarkable list of candidates for CASAC. If you have any questions, please contact Jason Sloan, AAPCA's Executive Director, at <a href="mailto:jsloan@csg.org">jsloan@csg.org</a> or (859) 244-8043.

Sincerely,

Jason Sloan

Executive Director, AAPCA

<sup>&</sup>lt;sup>7</sup> CASAC Charter.

<sup>&</sup>lt;sup>8</sup> CASAC 2019 Membership Balance Plan, March 21, 2019.

<sup>&</sup>lt;sup>9</sup> See 42 U.S. Code §7409.